EXHIBIT 12

Analysis of Infringement of U.S. Patent No. 7,216,301 by Microchip Technology Incorporated

Plaintiffs Caddo Systems, Inc. and 511 Technologies, Inc. ("Caddo"), provide this final and exemplary infringement analysis with respect infringement of U.S. Patent No. 7,216,301, entitled "ACTIVE PATH MENU NAVIGATION SYSTEM" (the "'301 patent") by Microchip Technology Incorporated ("Microchip"). The following chart illustrates an exemplary analysis regarding infringement by Microchip's products and services ("'301 Accused Instrumentalities"):

(i) web pages and content, including user interfaces such as a hierarchical information structure, to be interactively presented in browsers, including, without limitation, the web pages and content accessible via https://www.microchip.com/ (as shown below) including www.microchipdirect.com and maintained on servers located in and/or accessible from the United States under the control of Defendant that allow navigating a multi-level hierarchical information structure, where each level in the information structure contains plural items, each item being at least one of a function, a pointer to a location, and a pointer to another level;

(ii) software, including, without limitation, software that allows web pages and content to be interactively presented in and/or served to browsers to facilitate navigating within a multi-level hierarchical information structure, where each level in the information structure contains plural items, each item being at least one of a function, a pointer to a location, and a pointer to another level; and

(iii) computer equipment, including, without limitation, computer equipment that stores, serves, hosts, supports, and/or runs any of the foregoing or that allows navigating within a multi-level hierarchical information structure, where each level in the information structure contains plural items, each item being at least one of a function, a pointer to a location, and a pointer to another level, and any products, devices, systems, and/or components of systems with the same or substantially the same technical features and/or functionalities.

The analysis set forth below is based largely upon information from publicly available resources regarding the Accused Instrumentalities and Microchip's limited discovery production, as discovery in this matter has not yet been completed.

Unless otherwise noted, Caddo contends that Microchip directly infringes the '301 patent in violation of 35 U.S.C. § 271(a) by making, using, and/or selling, and/or offering to sell in the United States, and/or importing into the United States, without authority or license, the Accused Instrumentalities.

The following exemplary analysis demonstrates that infringement. Unless otherwise noted, Caddo further contends that the evidence below supports a finding of indirect infringement under 35 U.S.C. § 271(b) and 35 U.S.C. § 271(c) in conjunction with other evidence of liability.

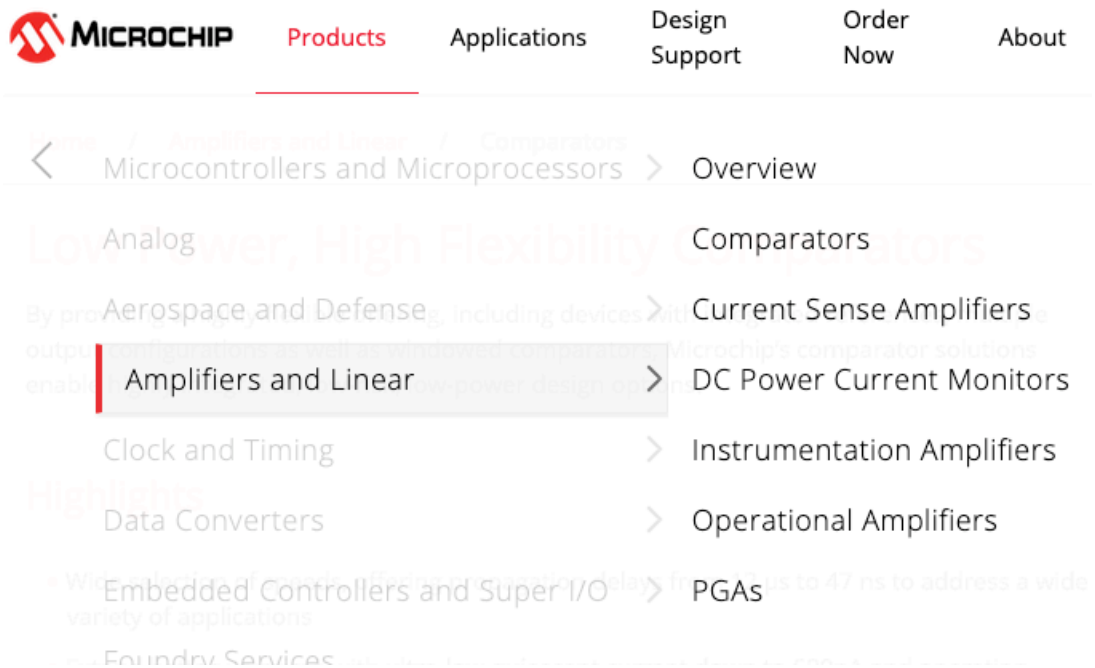
Unless otherwise noted, Caddo believes and contends that each element of each claim asserted herein is literally met through Microchip's provision or importation of the Accused Instrumentalities. However, to the extent that Microchip attempts to allege that any asserted claim element is not literally met, Caddo believes and contends that such elements are met under the doctrine of equivalents. More specifically, in its investigation and analysis of the Accused Instrumentalities, Caddo did not identify any substantial differences between the elements of the patent claims and the corresponding features of the Accused Instrumentalities, as set forth herein. In each instance, the identified feature of the Accused Instrumentalities performs at least substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim element.

Caddo reserves the right to supplement and/or amend the positions taken in this infringement analysis, including with respect to literal infringement and infringement under the doctrine of equivalents, if and when warranted by further information obtained by Caddo, including but not limited to information adduced through information exchanges between the parties, fact discovery, expert discovery, and/or further analysis.

U.S. Patent No. 7,216,301 Claims	**Infringement by the Microchip '301 Accused Instrumentalities**

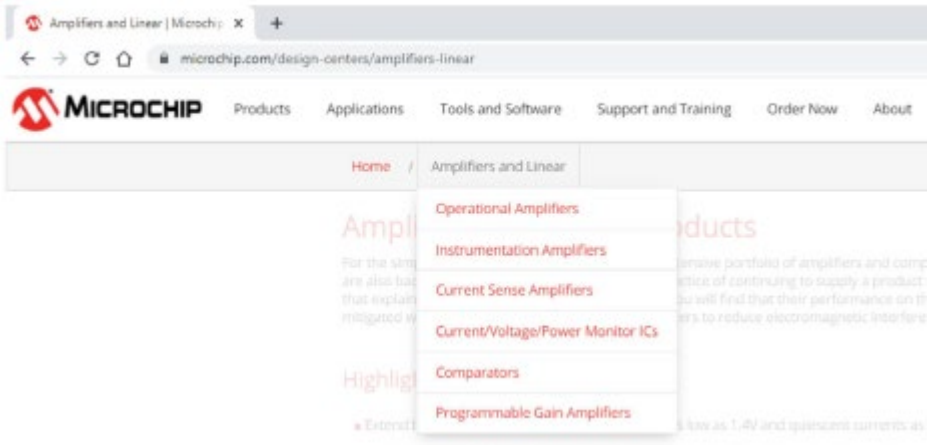
1. A method for navigating within a multi-level hierarchical information structure where each level in the information structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level, said method comprising the steps of:	The '301 Accused Instrumentalities ("Accused Instrumentalities") include: (iv) web pages and content, including user interfaces such as a hierarchical information structure, to be interactively presented in browsers, including, without limitation, the web pages and content accessible via https://www.microchip.com/ including www.microchipdirect.com and maintained on servers located in and/or accessible from the United States under the control of Defendant that allow navigating a multi-level hierarchical information structure, where each level in the information structure contains plural items, each item being at least one of a function, a pointer to a location, and a pointer to another level; (v) software, including, without limitation, software that allows web pages and content to be interactively presented in and/or served to browsers to facilitate navigating within a multi-level hierarchical information structure, where each level in the information structure contains plural items, each item being at least one of a function, a pointer to a location, and a pointer to another level; and (vi) computer equipment, including, without limitation, computer equipment that stores, serves, hosts, supports, and/or runs any of the foregoing or that allows navigating within a multi-level hierarchical information structure, where each level in the information structure contains plural items, each item being at least one of a function, a pointer to a location, and a pointer to another level, and any products, devices, systems, and/or components of systems with the same or substantially the same technical features and/or functionalities. **Direct Infringement** Microchip has directly infringed claims 1-5 and 9 of the '301 patent under 35 U.S.C. § 271(a) each time that it makes, uses, tests, and/or hosts in the United States the Accused Instrumentalities, or products, devices, systems, and/or components of systems, that practice the claimed methods described hereinbelow. Microchip also directly infringes each of the Asserted Claims under 35 U.S.C. § 271(a) each time that it imports the Accused Instrumentalities into the United States. **Indirect Infringement** Microchip has induced and continues to induce infringement by others of claims 1-5 and 9 of the '301 patent under 35 U.S.C. § 271(b) by (a) providing the Accused Instrumentalities to third parties and intending them to use the Accused Instrumentalities; (b) advertising these Accused Instrumentalities through Microchip's own and through third party websites; (c) encouraging customers and other third parties to communicate directly with Microchip about the Accused Instrumentalities for purposes of technical assistance and repair as well as sales and marketing; (d) providing instructions as to how to use the Accused Instrumentalities in an infringing manner.

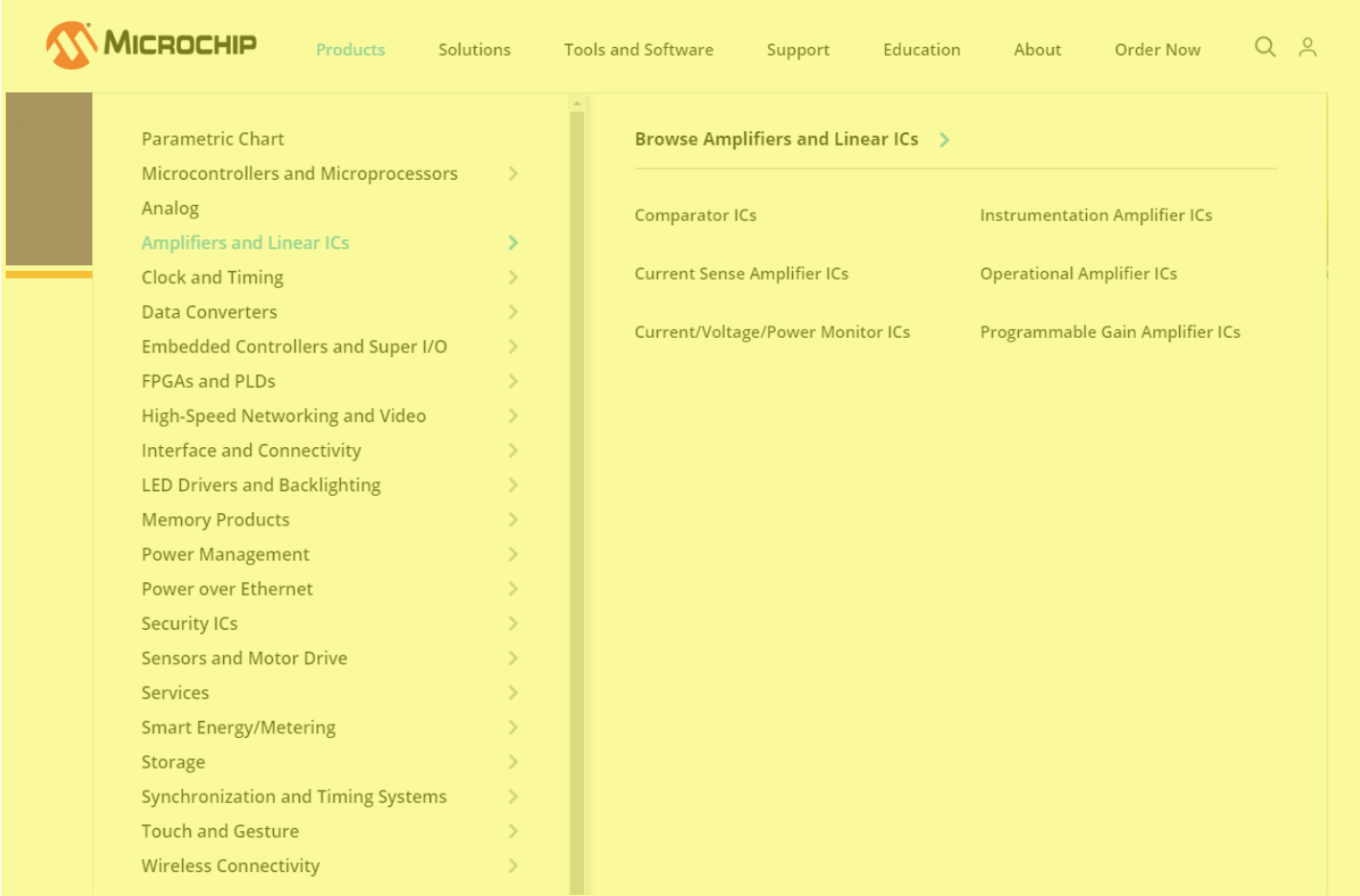
	Microchip has contributed to and continues to contribute to infringement by others of claims 1-5 and 9 of the '301 patent under 35 U.S.C. § 271(c) by providing the Accused Instrumentalities, including web pages and content, user interfaces (e.g., hierarchical collapsing menu structure, hierarchical information structure, information structure, and/or hierarchical menu structure), software, and/or computer equipment as identified above, in the United States without authority, Microchip contributes to the direct infringement of third-parties including end users of the Accused Instrumentalities. To the extent that the preamble of Claim 1 is a limitation, the '301 Accused Instrumentalities provide, or support the provision of, a method as described below. The '301 Accused Instrumentalities provide a method for navigating within a multi-level hierarchical information structure where each level in the information structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level (*e.g.*, the '301 Accused Instrumentalities provide a method for navigating within a multi-level hierarchical collapsing menu structure where each level in the information structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level (*e.g.*, "Products" includes "Amplifiers and Linear," which includes "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "Programmable Gain Amplifiers," and "DC Power Current Monitors")) as shown below:



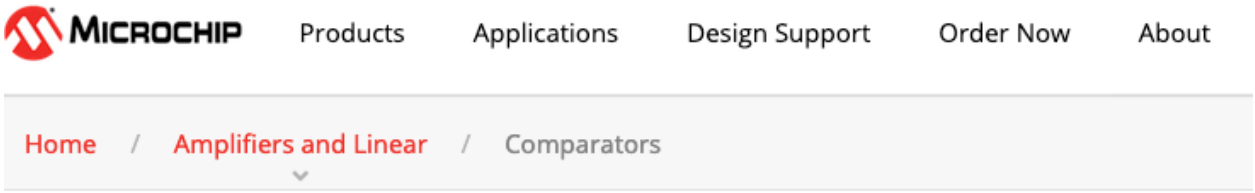
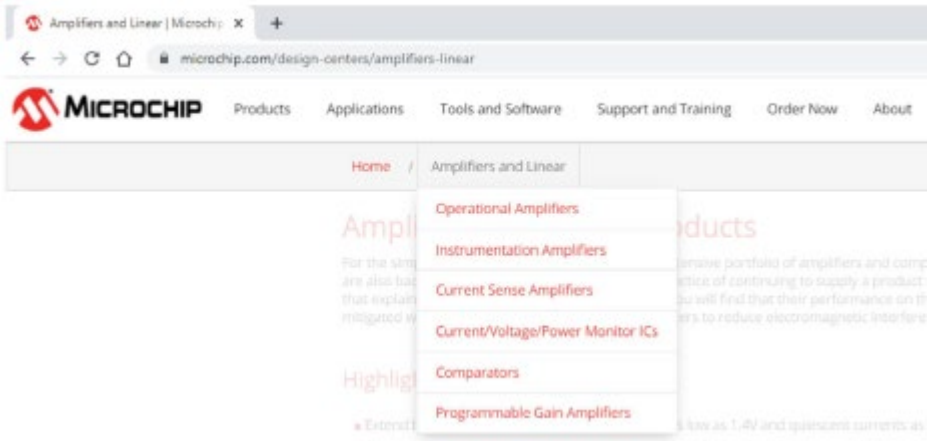
See, e.g., https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020).

See also MCHP-CADDO_0000935:

	 Amplifiers and Linear | Microch: microchip.com/design-centers/amplifiers-linear MICROCHIP Products Applications Tools and Software Support and Training Order Now About Home Amplifiers and Linear Operational Amplifiers Instrumentation Amplifiers Current Sense Amplifiers Current/Voltage/Power Monitor ICs Comparators Programmable Gain Amplifiers



See https://www.microchip.com/ (last accessed June 11, 2021).

providing a graphical user menu system displaying the items of a given level of the hierarchical information structure and enabling selection thereof; and	The '301 Accused Instrumentalities provide a graphical user menu system displaying the items of a given level of the hierarchical information structure and enabling selection thereof. For example, the '301 Accused Instrumentalities provide a graphical user menu system displaying the items of a given level of the hierarchical information structure and enabling selection thereof (*e.g.*, "Products" displays and enables selection of items of a given level, such as "Amplifiers and Linear" and items within that same level).  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020).  *See* MCHP-CADDO_0000935.

```
<div class="breadcrumbs-open-btn"><span>Menu</span></div>
<div class="breadcrumbs">
    <div class="breadcrumbs-top-bar">
        <span class="breadcrumbs-close-btn">×</span>
    </div>

    <div class="crumbs-wrapper">
        <div class="crumb">
            <div class="crumb-top">
                <a href="/">Home</a>
            </div>
        </div>
        <span class="breadcrumbs-separator">/</span>

                <div class="crumb has-menu">
                    <div class="crumb-top  current">
                        <a href="/design-centers/amplifiers-linear">Amplifiers and Linear</a>
                            <div class="open-menu"><i class="fa fa-angle-down"></i></div>
                </div>
                  <ul>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/operational-amplifiers">Operational Amplifiers</a>
    </li>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/instrumentation-amplifiers">Instrumentation Amplifiers</a>
    </li>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/current-sense-amplifiers">Current Sense Amplifiers</a>
    </li>
    <li class="">
```

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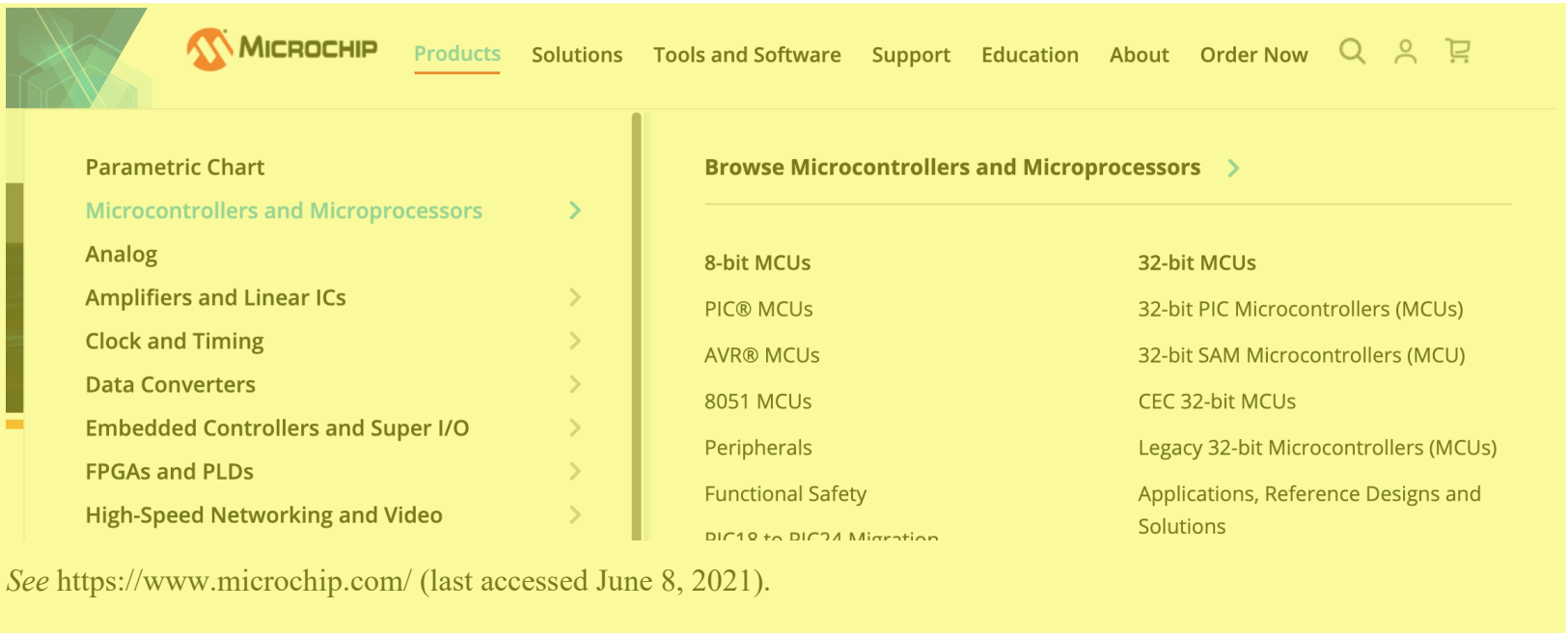
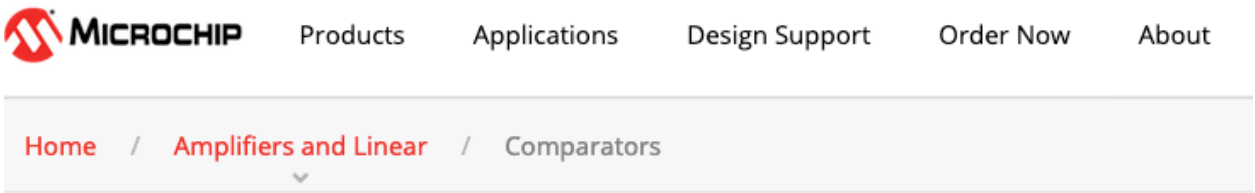
349             <a class=" " href="/design-centers/amplifiers-linear/current-voltage-p
    ower-monitors">Current/Voltage/Power Monitor ICs</a>
350         </li>
351         <li class="">
352             <a class=" " href="/design-centers/amplifiers-linear/comparators">Comp
    arators</a>
353         </li>
354         <li class="">
355             <a class=" " href="/design-centers/amplifiers-linear/programmable-gain
    -amplifiers">Programmable Gain Amplifiers</a>
356         </li>
357                         </ul>
358                     </div>
359
360         </div>
361     </div>
362     <div class="breadcrumbs-curtain"></div>
363
364     <div class="row" data-sf-element="Row">
```

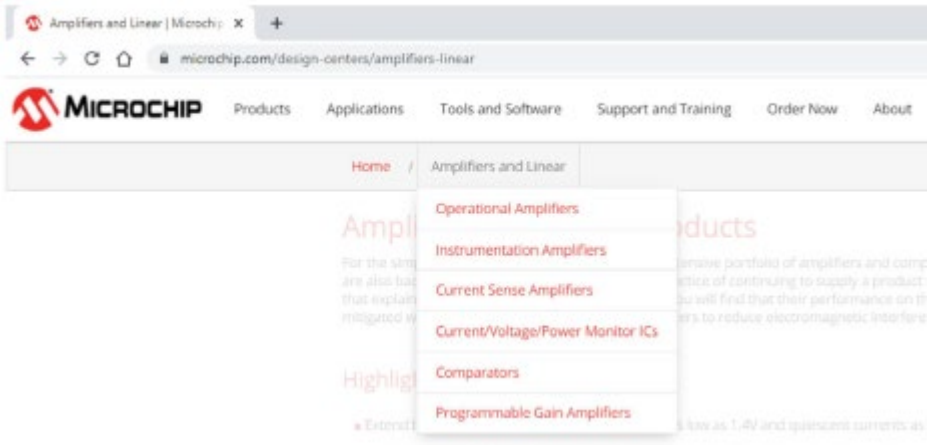
See MCHP-CADDO_0001040-41.

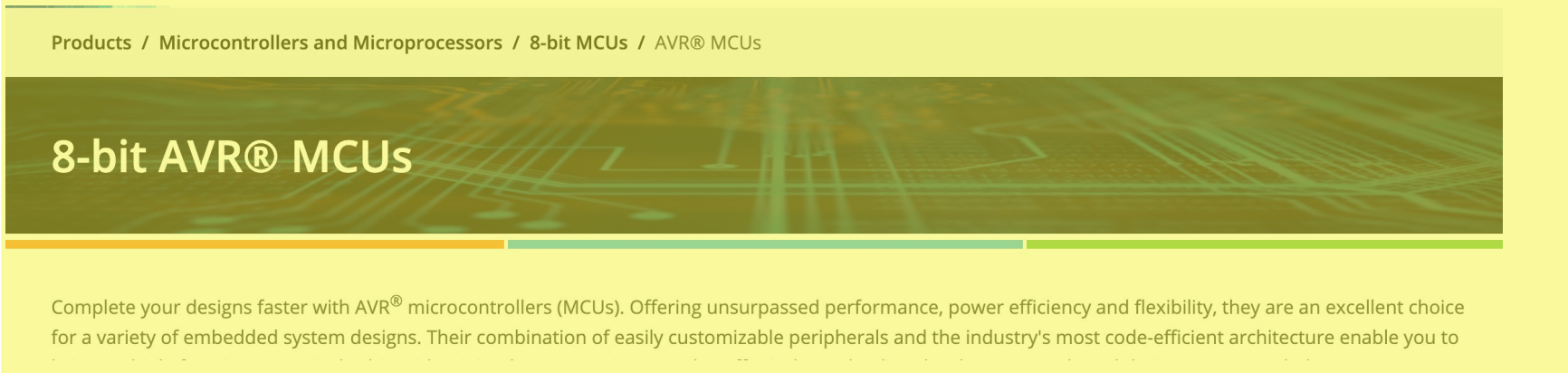
As another example, the '301 Accused Instrumentalities provide a graphical user menu system displaying the items of a given level of the hierarchical information structure and enabling selection thereof (e.g., "Products" displays and enables selection of items of a given level, such as "Microcontrollers and Microprocessors" and items within that same level "Analog," "Amplifiers and Linear ICs," "Clock and Timing" "Data Converters," etc.) as shown below:



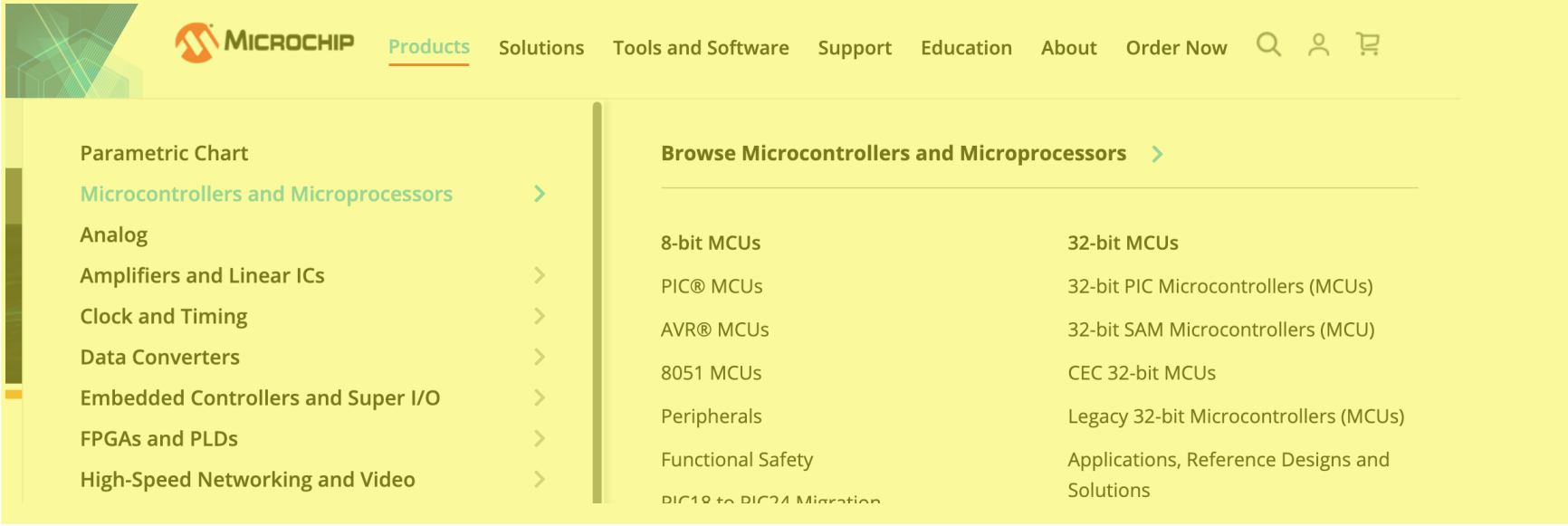
See https://www.microchip.com/ (last accessed June 8, 2021).

dynamically constructing an Active Path as a sequence of active links as items are selected using the graphical user menu system, with one said active link corresponding to each of the items selected, said active links providing direct access to one of a function, corresponding level and menu item without the need to navigate using said	The '301 Accused Instrumentalities dynamically construct an Active Path, which has been construed by this Court (Dkt. 34) as a sequence of links dynamically created as a menu item is navigated, as a sequence of active links as items are selected using the graphical user menu system, with one said active link corresponding to each of the items selected, said active links providing direct access to one of a function, corresponding level and menu item without the need to navigate using said graphical user menu system. For example, the '301 Accused Instrumentalities dynamically construct a sequence of links dynamically created as a menu item is navigated, as the sequence of active links as items are selected (*e.g.*, the '301 Accused Instrumentalities dynamically construct a sequence of links dynamically created (*e.g.*, "Amplifiers and Linear—Comparators") as the sequence of active links as items are selected (*e.g.*, as "Amplifiers and Linear" and "Comparators" are selected)), with one said active link corresponding to each of the items selected. Said active links provide direct access to one of a function, corresponding level and menu item without the need to navigate using said graphical user menu system (*e.g.*, the '301 Accused Instrumentalities' sequence of links dynamically created as a menu item is navigated "Amplifiers and Linear—Comparators" corresponds to each of the items sequentially selected, including "Amplifiers and Linear" and "Comparators").  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935:

graphical user menu system;	 As another example, the '301 Accused Instrumentalities dynamically construct a sequence of links dynamically created as a menu item is navigated, as the sequence of active links as items are selected (*e.g.*, links in this path "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs / AVR® DA," as a sequence of hierarchical active links as items are selected (e.g., as each hierarchical active link in the path "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs / AVR® DA" is selected, and the active links correspond to each of the items selected using the graphical user menu system) without the need to navigate using said graphical user menu system as shown below:

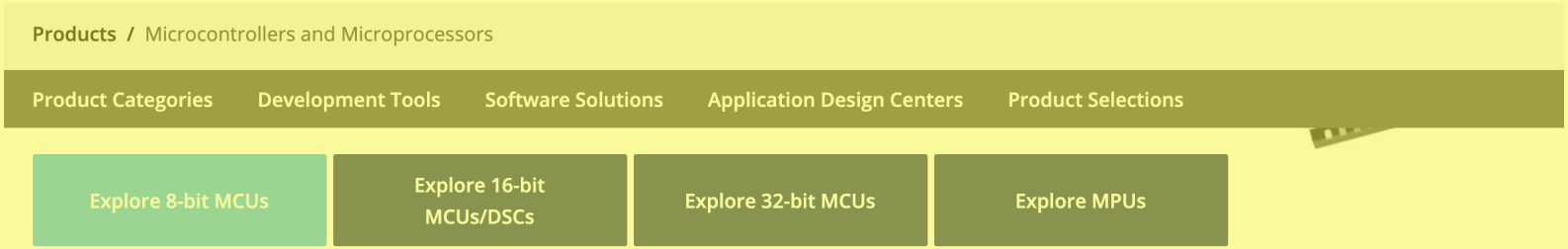


See https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus/avr-da (last accessed June 7, 2021); *see also*:



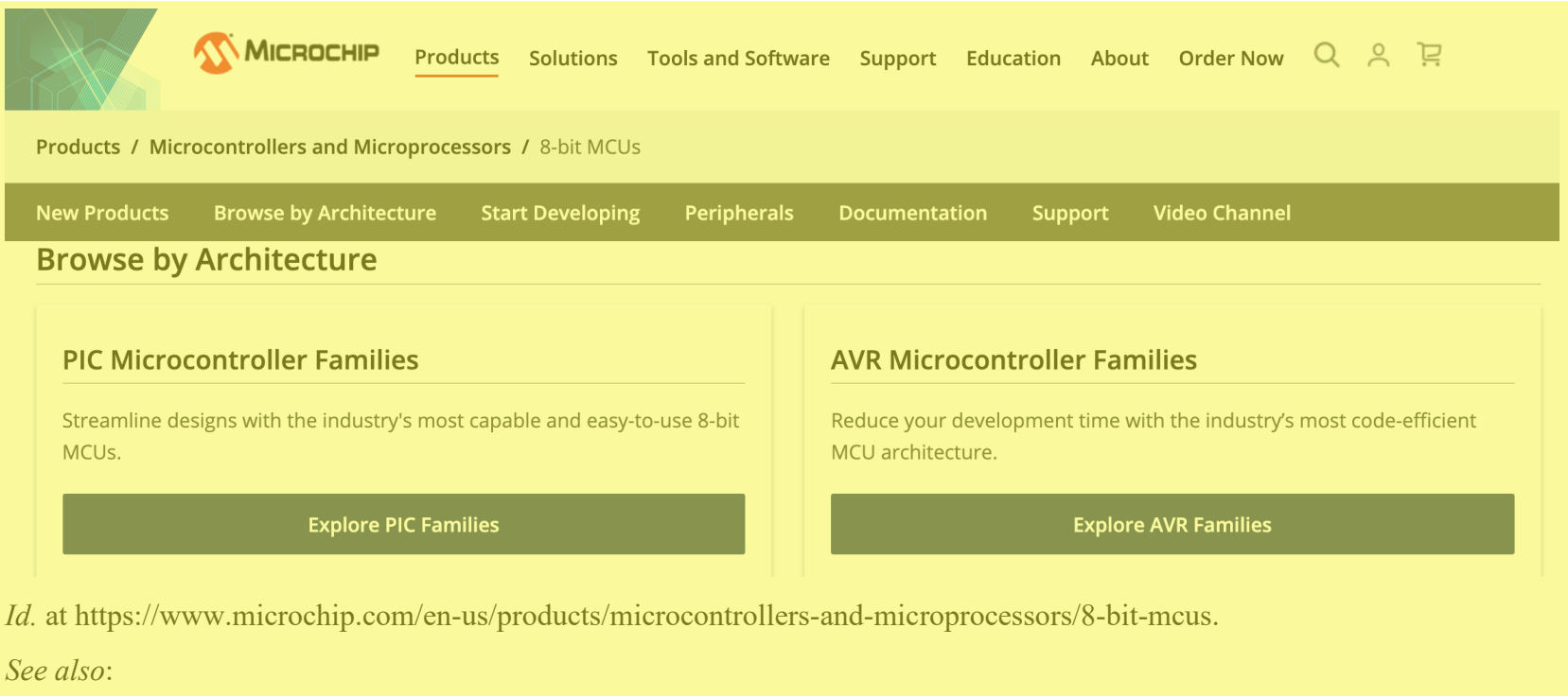
Id. at https://www.microchip.com/.

See also:



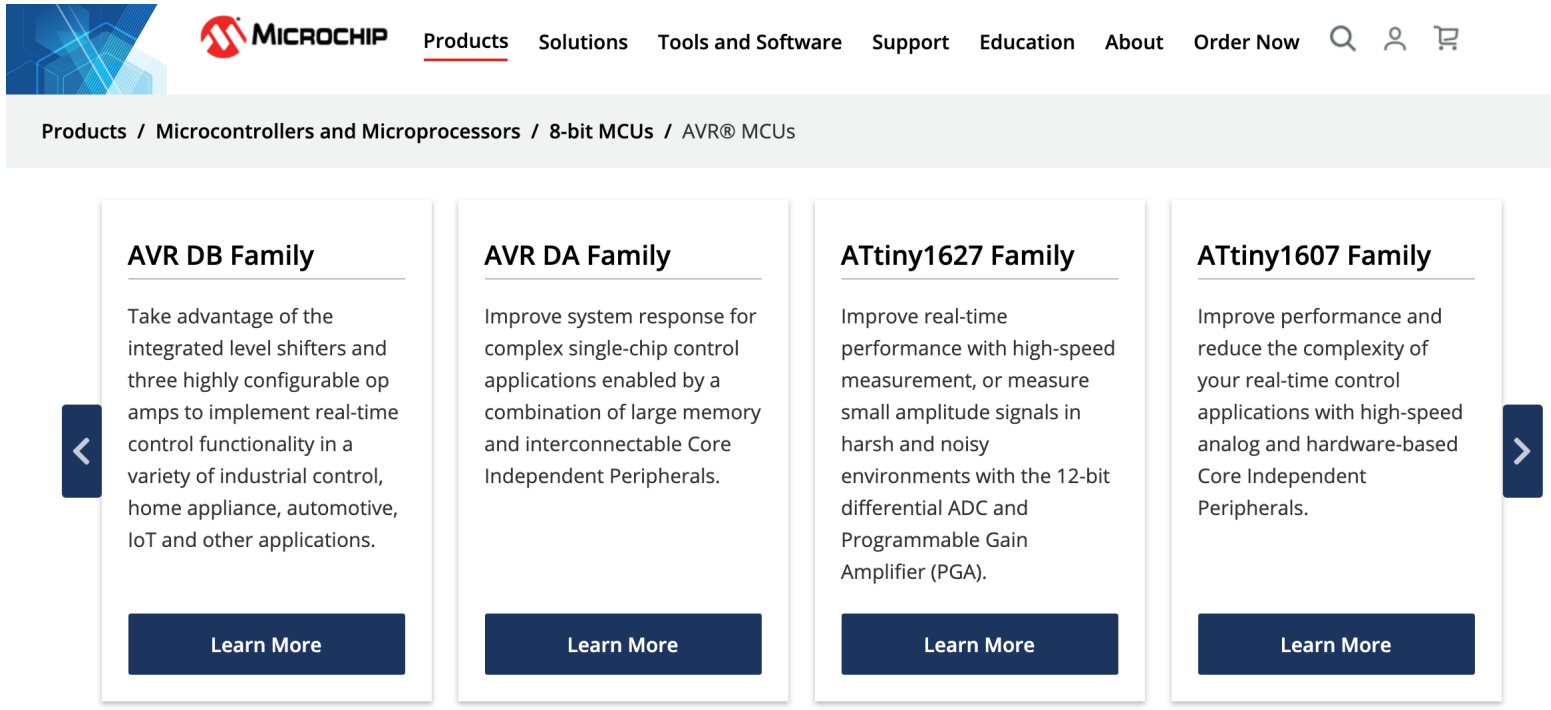
Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors.

See also:



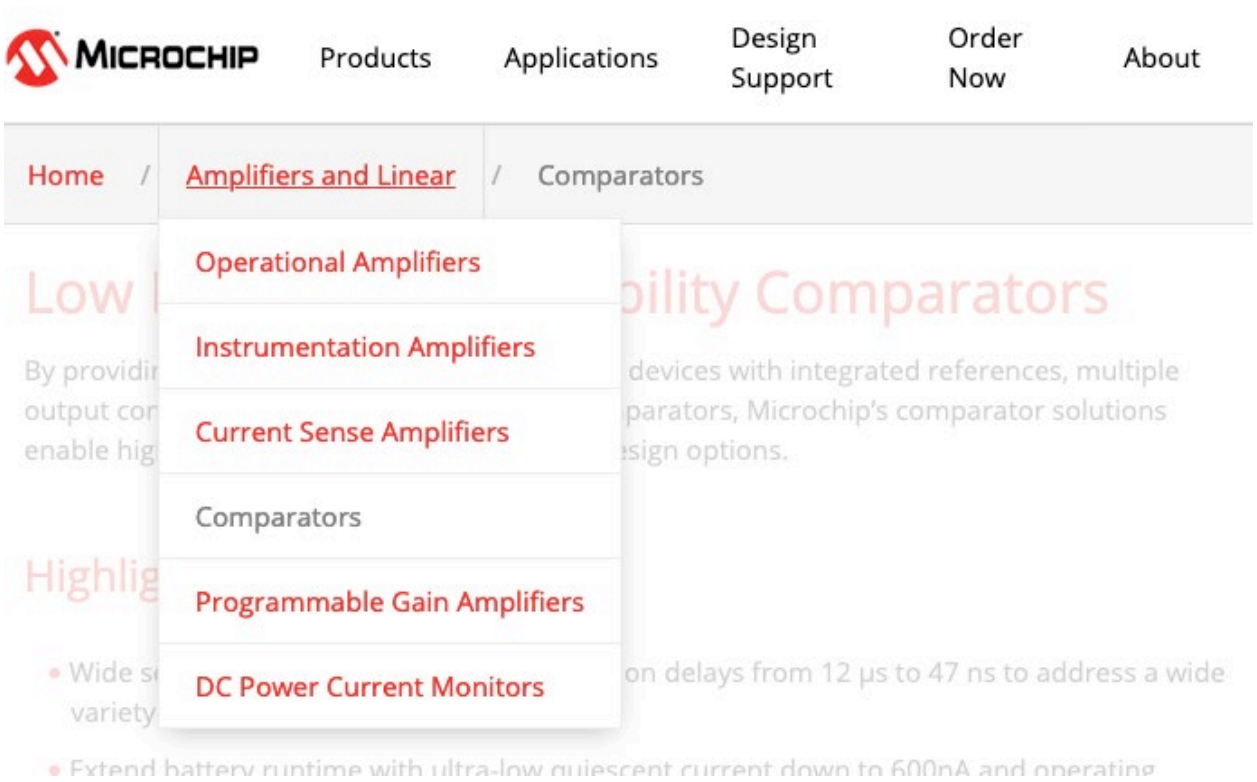
Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus.

See also:



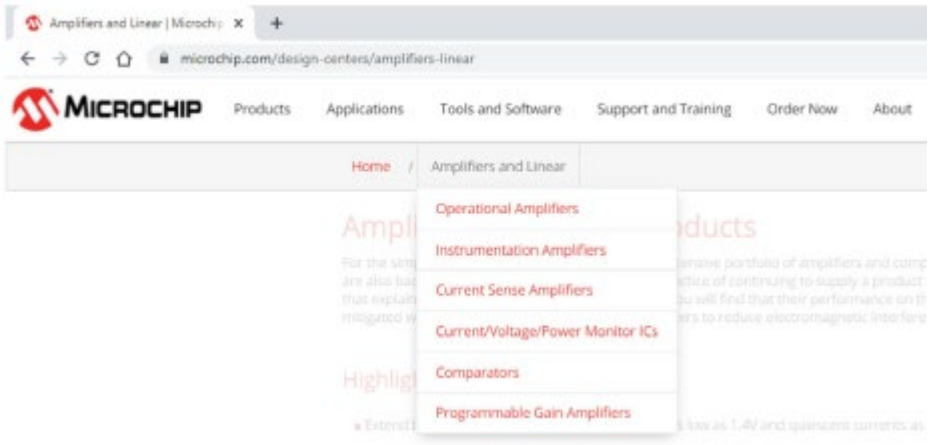
Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus (last accessed Jun. 8, 2021).

each said active link enabling the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the Active Path.	Each active link of the '301 Accused Instrumentalities enables the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the Active Path, which has been construed by this Court (Dkt. 34) as a sequence of links dynamically created as a menu item is navigated. For example, each active link in the '301 Accused Instrumentalities enables the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the sequence of links dynamically created as a menu item is navigated (*e.g.*, the '301 Accused Instrumentalities enable the user to directly browse all items under "Amplifiers and Linear" such as "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "Programmable Gain Amplifiers," and "DC Power Current Monitors" without affecting the a sequence of links dynamically created as a menu item is navigated "Amplifiers and Linear—Comparators") as shown below:

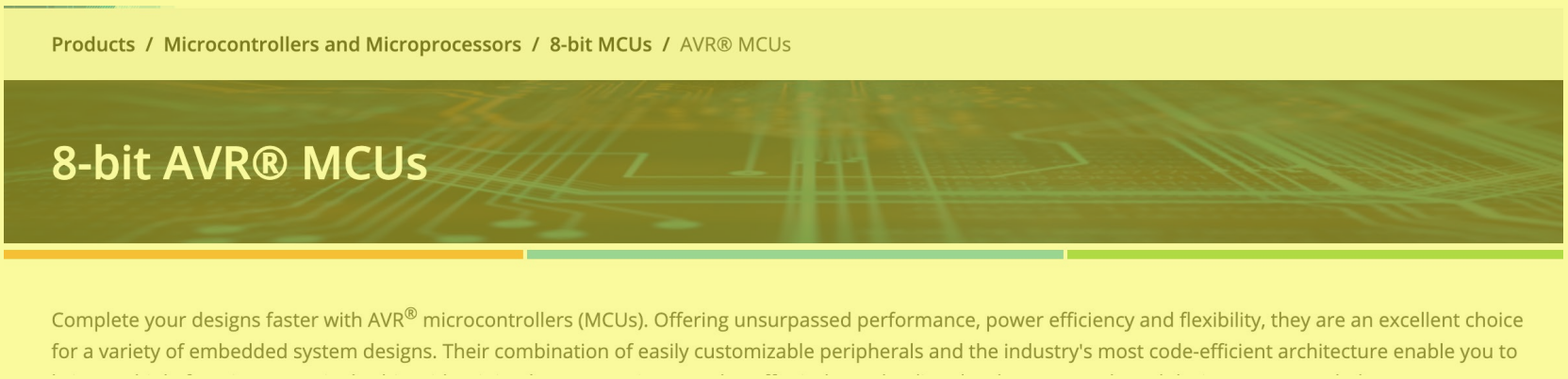


See, e.g., https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020).

See also MCHP-CADDO_0000935:



As another example, each active link in the '301 Accused Instrumentalities enables the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the sequence of links dynamically created as a menu item is navigated (*e.g.*, the '301 Accused Instrumentalities enable the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items in the path "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs" without affecting the a sequence of links dynamically created as a menu item is navigated "Products—Microcontrollers and Microprocessors") as shown below:



See https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus/avr-da (last visited Jun. 7, 2021).

For example, the user can directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items in the path "Products / Microcontrollers and Microprocessors" such as "Product Categories," "Development Tools," "Software Solutions," "Application Design Centers," and "Product Selections" without affecting the path "Products / Microcontrollers and Microprocessors" (e.g., the user can browse items under "Product Categories," "Development Tools," "Software Solutions," "Application Design Centers," or "Product Selections" without affecting the path "Products / Microcontrollers and Microprocessors.").

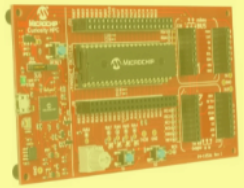
As another example, each active link in the '301 Accused Instrumentalities enable the user to directly browse all items on any given level of the hierarchical information structure (e.g., all items under "Products / Microcontrollers and Microprocessors") including all hierarchically subordinate items (e.g., browsing "Development tools" allows browsing of subordinate items such as products associated with "Part Number: DM164136" or "Part Number: DM330028") without affecting the sequence of links dynamically created as a menu item is navigated as shown below:

MICROCHIP Products Solutions Tools and Software Support Education About Order Now

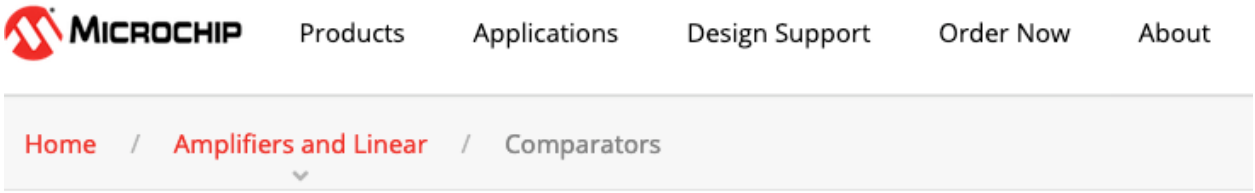
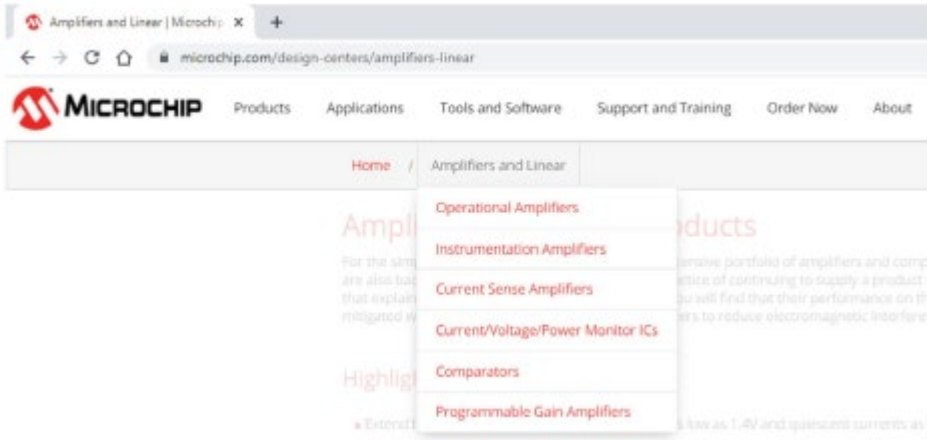
Products / Microcontrollers and Microprocessors

Product Categories Development Tools Software Solutions Application Design Centers Product Selections

Featured Development Tools

Development Board	Description
Curiosity High Pin Count (HPC) Development Board Part Number: DM164136  Learn More	The Curiosity High Pin Count (HPC) Development Board (DM164136) supports a wide variety of 8-bit MCUs. Curiosity Development Boards are cost-effective, fully-integrated MCU development platforms. The development board includes an integrated programmer/debugger and requires no additional hardware to get started.
dsPIC33CH Curiosity Development Board Part Number: DM330028	Evalute the dual-core dsPIC33CH family using this low-cost board with a configurable power supply load step transient generator. Or customize the board for your application using the two mikroBUS™ interfaces for adding a large variety of click Boards.

	See https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors#Development%20Tools (last accessed Jun. 8, 2021).

2. The method for navigating according to claim 1, further comprising: providing pre-defined short-cuts enabling direct access to a given item; and	The '301 Accused Instrumentalities provide pre-defined short-cuts enabling direct access to a given item. For example, the '301 Accused Instrumentalities provide pre-defined short-cuts enabling direct access to a given item (*e.g.*, the '301 Accused Instrumentalities provide pre-defined shortcuts, such as "Amplifiers and Linear" or "Comparators" in the collapsing menu, enabling direct access to a given menu item).  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935: 

```
<div class="breadcrumbs-open-btn"><span>Menu</span></div>
<div class="breadcrumbs">
    <div class="breadcrumbs-top-bar">
        <span class="breadcrumbs-close-btn">×</span>
    </div>

    <div class="crumbs-wrapper">
        <div class="crumb">
            <div class="crumb-top">
                <a href="/">Home</a>
            </div>
        </div>
        <span class="breadcrumbs-separator">/</span>

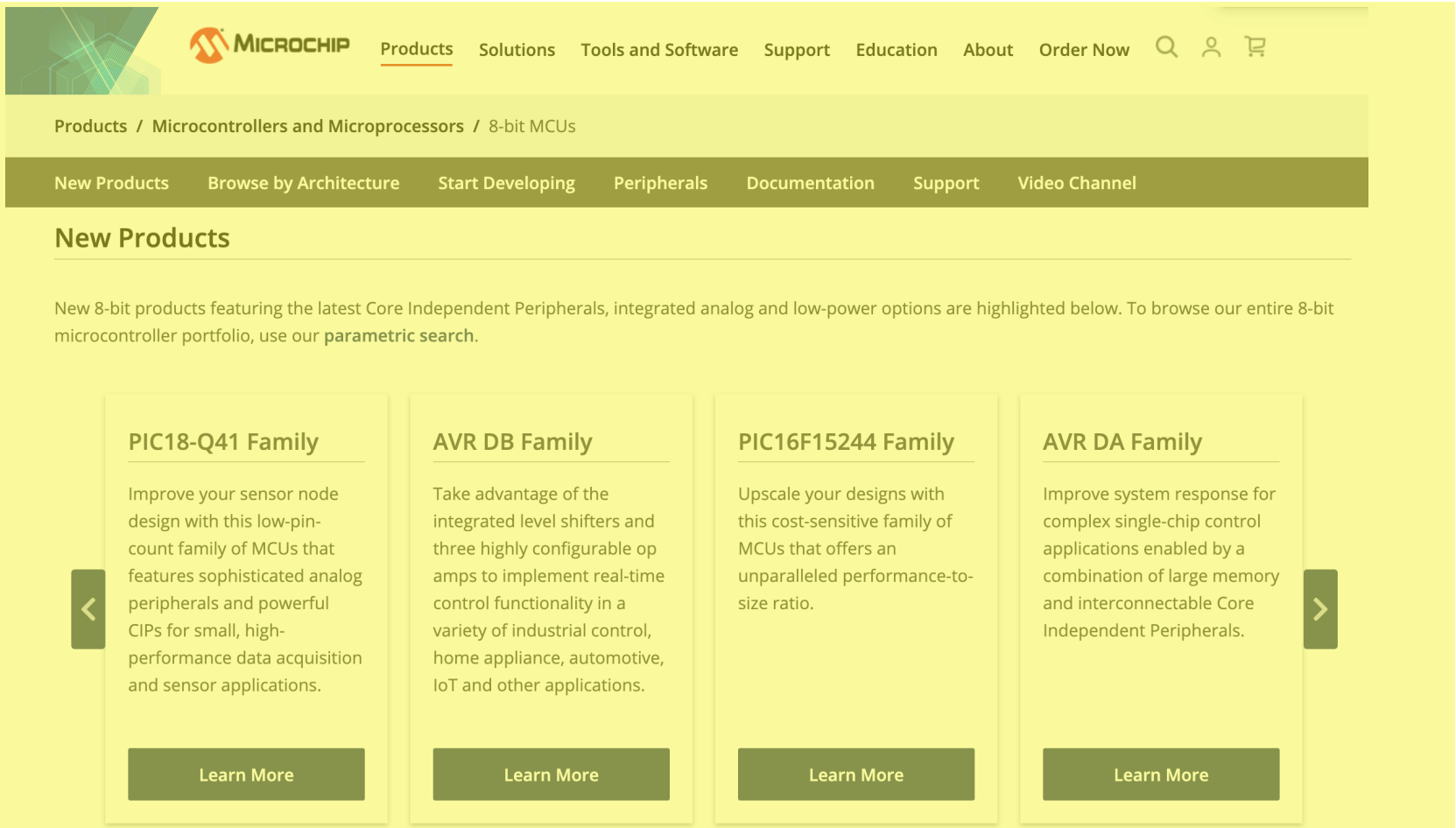
                <div class="crumb has-menu">
                    <div class="crumb-top  current">
                        <a href="/design-centers/amplifiers-linear">Amplifiers and Linear</a>
                            <div class="open-menu"><i class="fa fa-angle-down"></i></div>
                </div>
                  <ul>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/operational-amplifiers">Operational Amplifiers</a>
    </li>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/instrumentation-amplifiers">Instrumentation Amplifiers</a>
    </li>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/current-sense-amplifiers">Current Sense Amplifiers</a>
    </li>
    <li class="">
```

```
349             <a class=" " href="/design-centers/amplifiers-linear/current-voltage-p
    ower-monitors">Current/Voltage/Power Monitor ICs</a>
350         </li>
351         <li class="">
352             <a class=" " href="/design-centers/amplifiers-linear/comparators">Comp
    arators</a>
353         </li>
354         <li class="">
355             <a class=" " href="/design-centers/amplifiers-linear/programmable-gain
    -amplifiers">Programmable Gain Amplifiers</a>
356         </li>
357                         </ul>
358                     </div>
359
360         </div>
361     </div>
362     <div class="breadcrumbs-curtain"></div>
363
364     <div class="row" data-sf-element="Row">
```

See MCHP-CADDO_0001040-41.

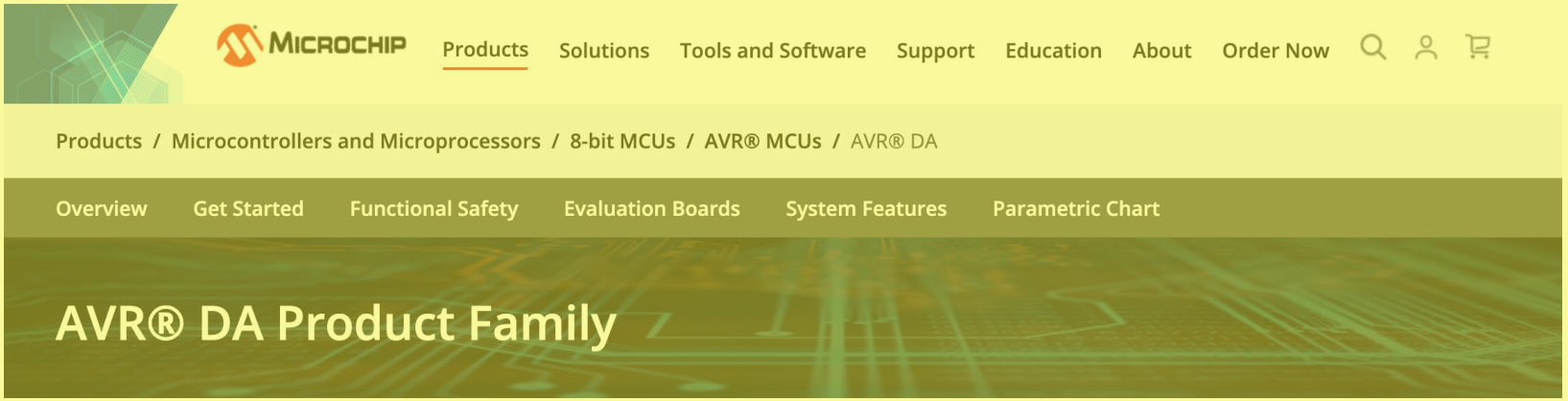
For example, the '301 Accused Instrumentalities provide pre-defined short-cuts enabling direct access to a given menu item (*e.g.*, the '301 Accused Instrumentalities provide pre-defined shortcuts, such as "AVR® MCUs" and "AVR® DA," or "New Products," that enable direct access to those items), as shown below:


MICROCHIP
Products
Solutions
Tools and Software
Support
Education
About
Order Now
Parametric Chart
Microcontrollers and Microprocessors
Analog
Amplifiers and Linear ICs
Clock and Timing
Data Converters
Embedded Controllers and Super I/O
FPGAs and PLDs
High-Speed Networking and Video
Browse Microcontrollers and Microprocessors
8-bit MCUs
PIC® MCUs
AVR® MCUs
8051 MCUs
Peripherals
Functional Safety
32-bit MCUs
32-bit PIC Microcontrollers (MCUs)
32-bit SAM Microcontrollers (MCU)
CEC 32-bit MCUs
Legacy 32-bit Microcontrollers (MCUs)
Applications, Reference Designs and

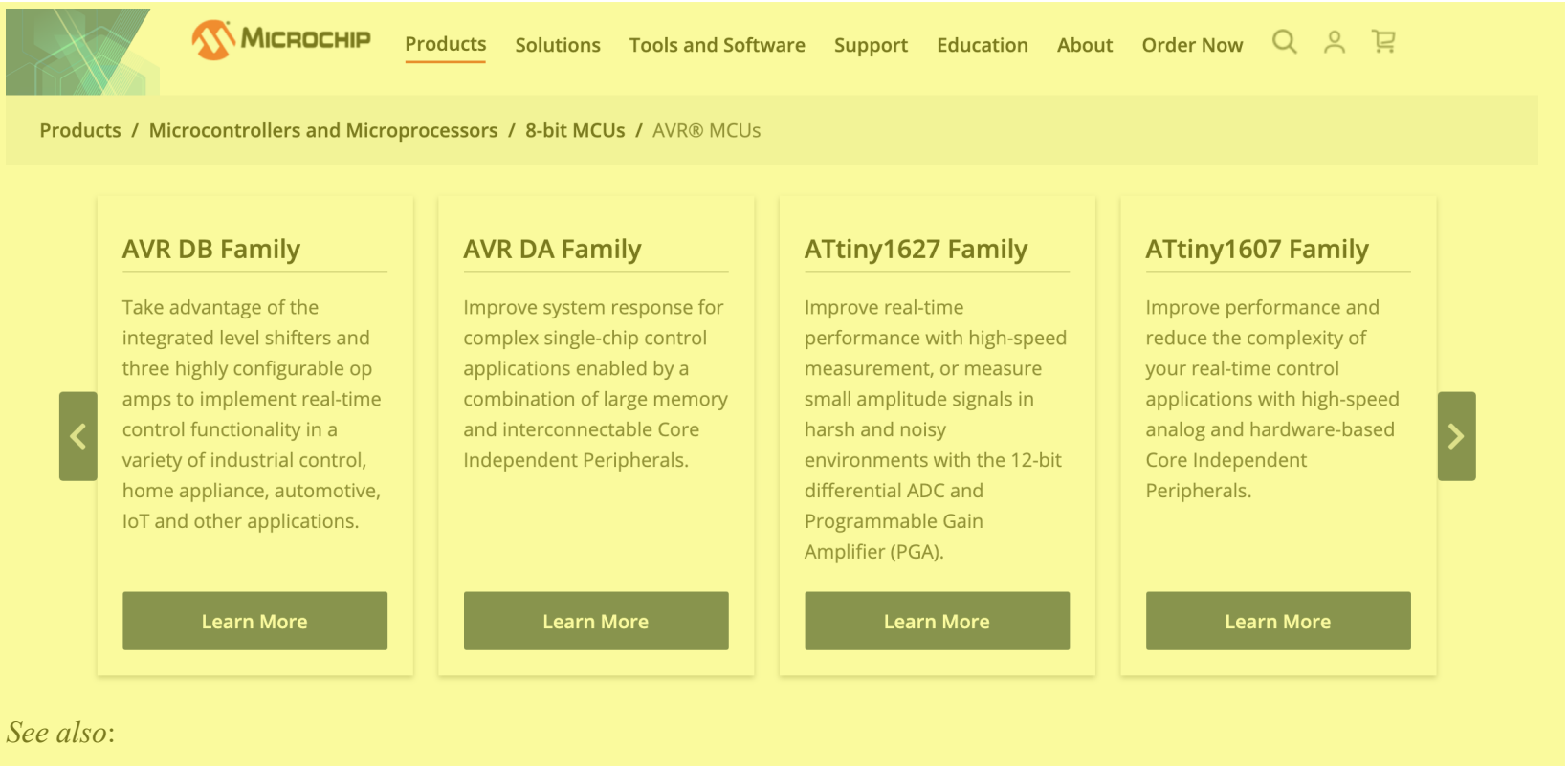


Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus (last accessed Jun. 8, 2021).

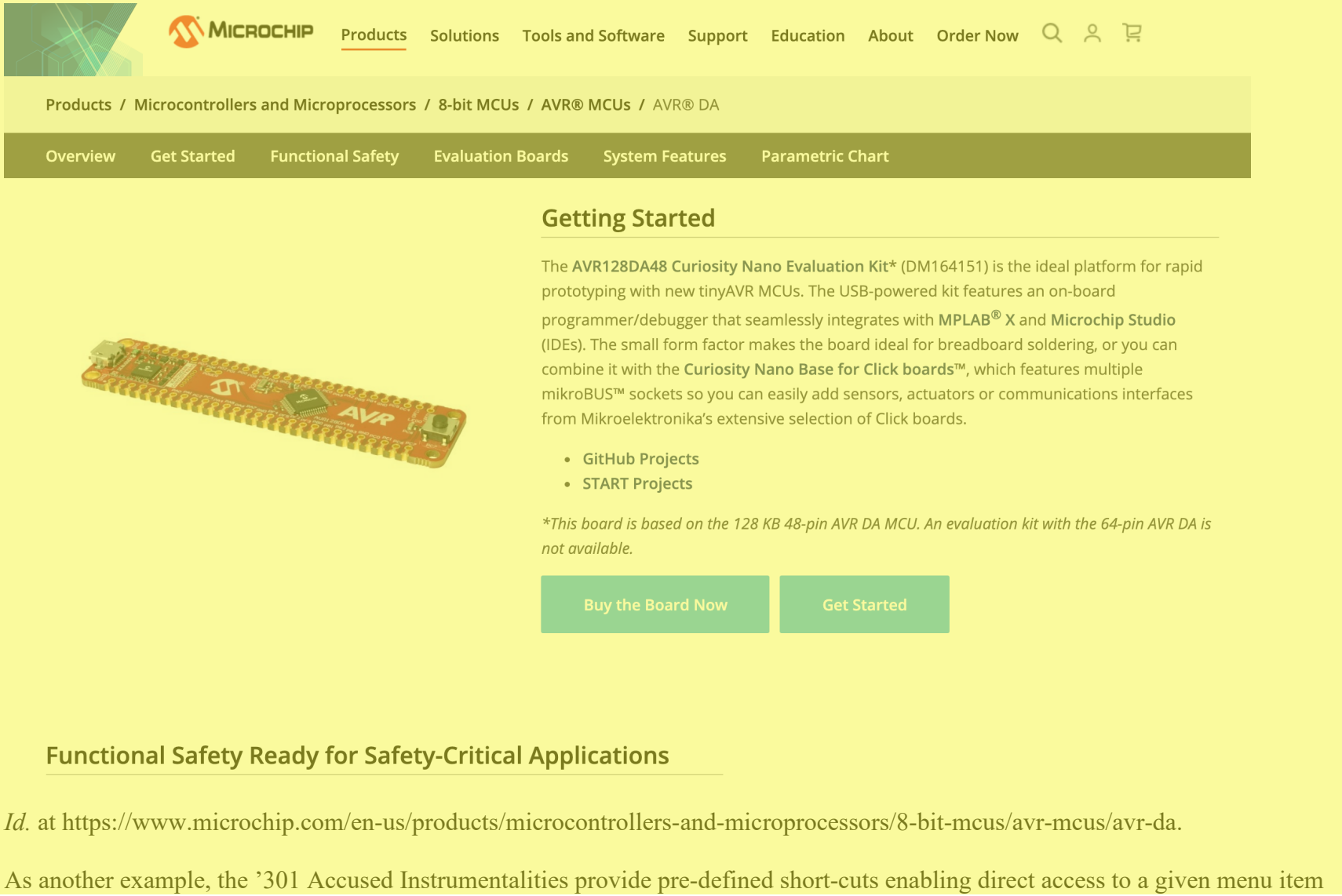
See also https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus/avr-da:



See also https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus (e.g., providing pre-defined shortcuts that enable direct access to the item "AVR® DA"):


MICROCHIP
Products
Solutions
Tools and Software
Support
Education
About
Order Now
Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs
AVR DB Family
Take advantage of the integrated level shifters and three highly configurable op amps to implement real-time control functionality in a variety of industrial control, home appliance, automotive, IoT and other applications.
Learn More
AVR DA Family
Improve system response for complex single-chip control applications enabled by a combination of large memory and interconnectable Core Independent Peripherals.
Learn More
ATtiny1627 Family
Improve real-time performance with high-speed measurement, or measure small amplitude signals in harsh and noisy environments with the 12-bit differential ADC and Programmable Gain Amplifier (PGA).
Learn More
ATtiny1607 Family
Improve performance and reduce the complexity of your real-time control applications with high-speed analog and hardware-based Core Independent Peripherals.
Learn More

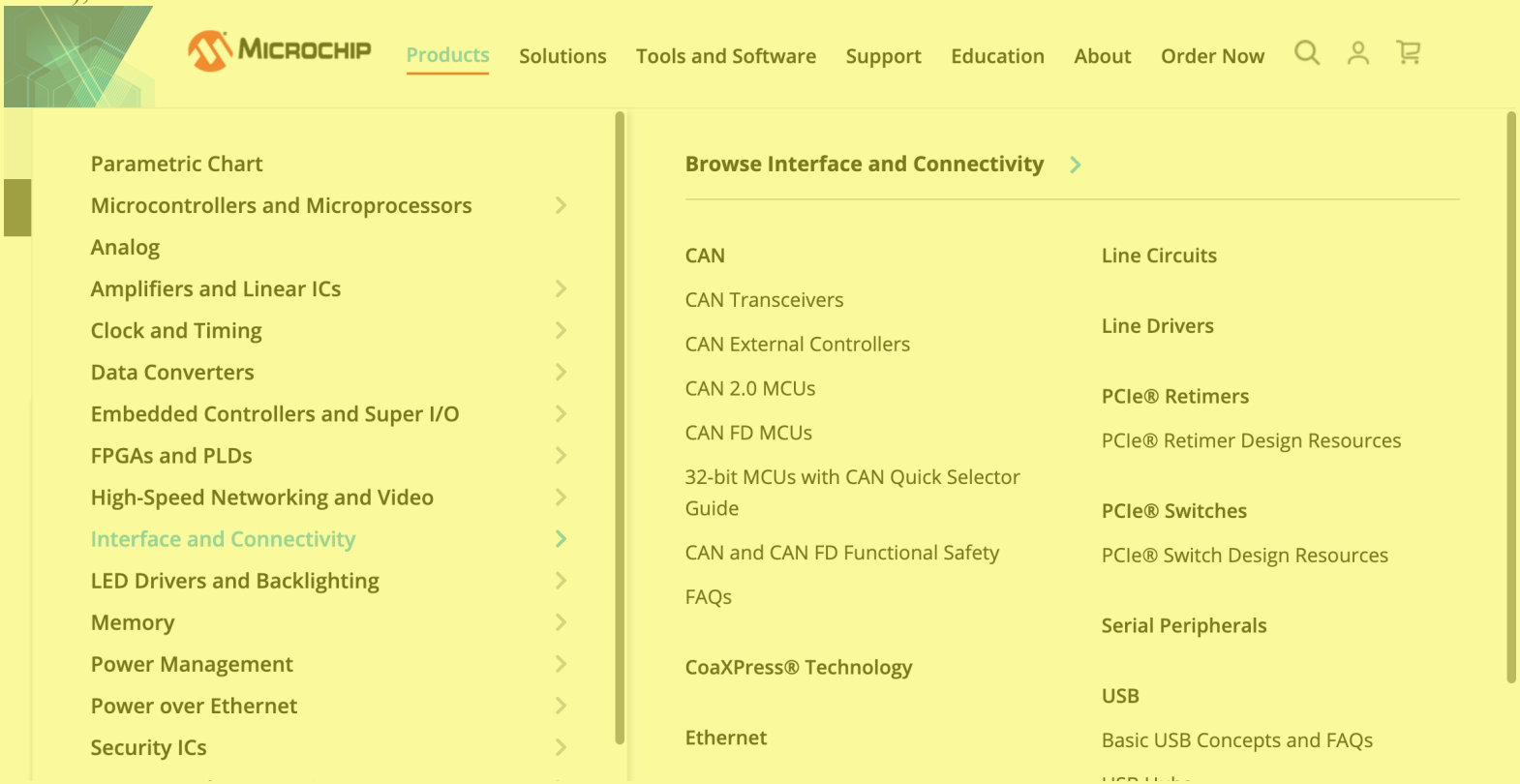
See also:



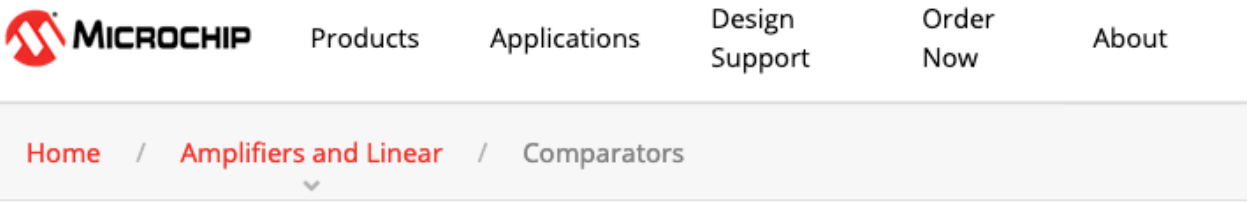
Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus/avr-da.

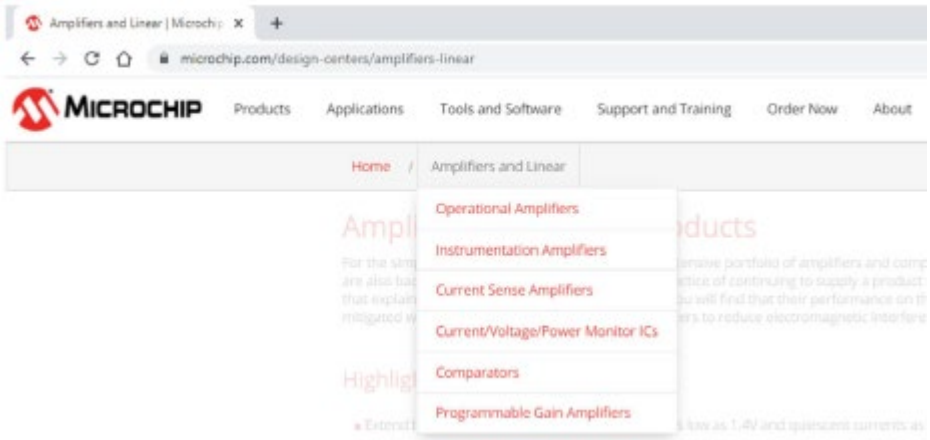
As another example, the '301 Accused Instrumentalities provide pre-defined short-cuts enabling direct access to a given menu item

(*e.g.*, the '301 Accused Instrumentalities provide pre-defined shortcuts, such as "CAN 2.0 MCUs" that enable direct access to those items), as shown below:

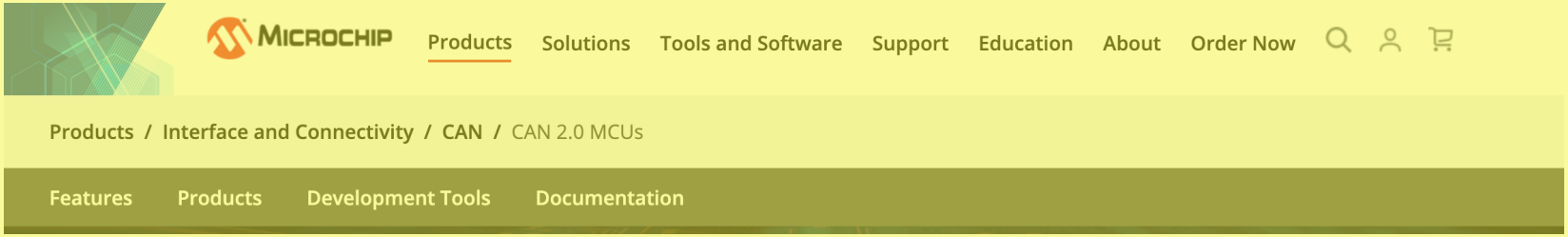


See https://www.microchip.com/ (last accessed June 8, 2021).

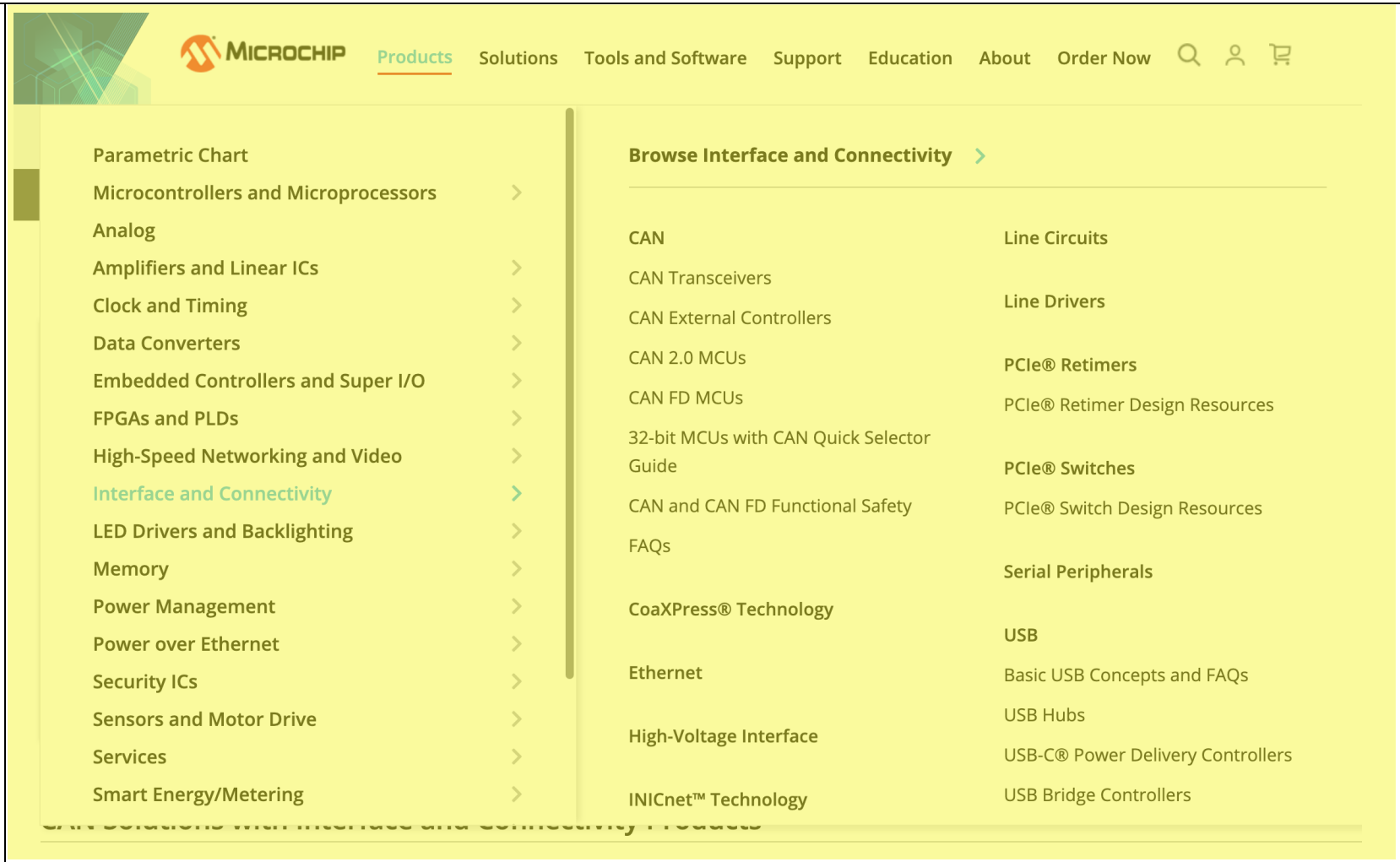
dynamically constructing the Active Path when a pre-defined short-cut is executed, with one said active link corresponding to each of the items necessary to access said given item using said graphical user menu system.	The '301 Accused Instrumentalities dynamically construct the Active Path, which has been construed by this Court (Dkt. 34) as a sequence of links dynamically created as the menu system is navigated, when a pre-defined short-cut is executed, with one said active link corresponding to each of the menu items necessary to access said given menu item using said graphical user menu system. For example, the '301 Accused Instrumentalities dynamically construct the sequence of links dynamically created as the menu system is navigated when a pre-defined short-cut is executed, with one said active link corresponding to each of the menu items necessary to access said given menu item using said graphical user menu system (*e.g.*, the sequence of links dynamically created as a menu item is navigated is automatically constructed when "Amplifiers and Linear" or "Comparators" is executed, with each active link "Amplifiers and Linear" or "Comparators" corresponding to each of the menu items necessary to access the given menu item using the graphical user menu system).  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935:



As another example, the '301 Accused Instrumentalities dynamically construct the sequence of links dynamically created as the menu system is navigated when a pre-defined short-cut is executed (e.g., when the short-cut corresponding to the link "CAN 2.0 MCUs" is executed), with one said active link (e.g., the link "CAN 2.0 MCUs" in the path "Products / Interface and Connectivity / CAN / CAN 2.0 MCUs") corresponding to each of the menu items necessary to access said given menu item using said graphical user menu system (e.g., the link "CAN 2.0 MCUs" corresponding to the menu item "CAN 2.0 MCUs"), as shown below:



See, e.g., https://www.microchip.com/en-us/products/interface-and-connectivity/can/can-2-0-mcus; *see also id.*: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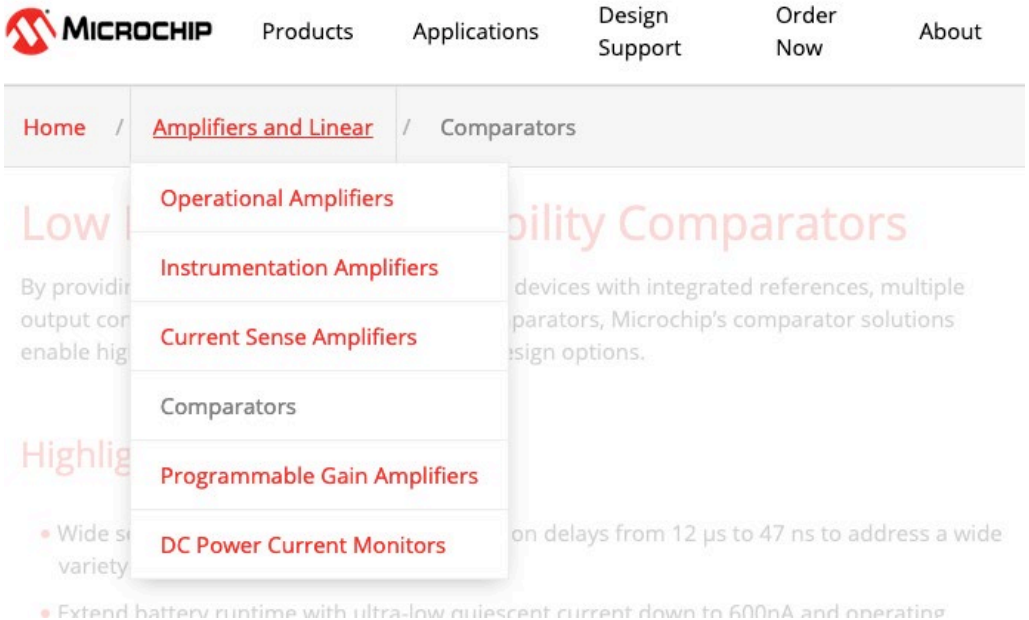
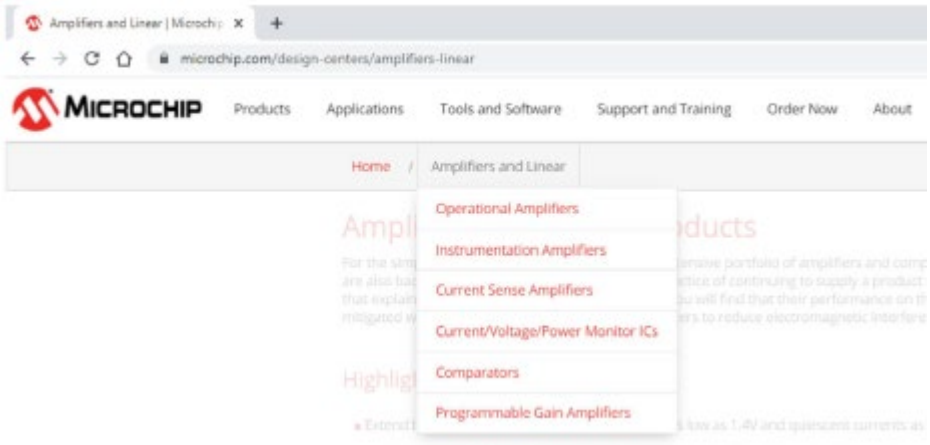
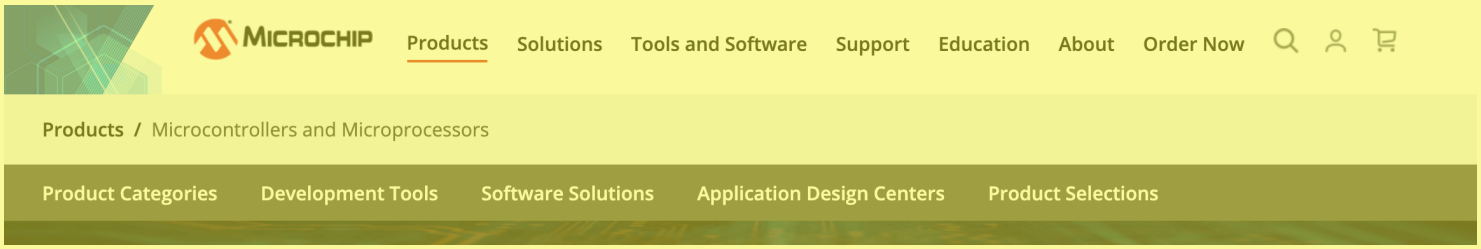
FPGAs and PLDs
High-Speed Networking and Video
Interface and Connectivity
LED Drivers and Backlighting
Memory
Power Management
Power over Ethernet
Security ICs
Sensors and Motor Drive
Services
Smart Energy/Metering
Browse Interface and Connectivity
CAN
CAN Transceivers
CAN External Controllers
CAN 2.0 MCUs
CAN FD MCUs
32-bit MCUs with CAN Quick Selector Guide
CAN and CAN FD Functional Safety
FAQs
CoaXPress® Technology
Ethernet
High-Voltage Interface
INICnet™ Technology
Line Circuits
Line Drivers
PCIe® Retimers
PCIe® Retimer Design Resources
PCIe® Switches
PCIe® Switch Design Resources
Serial Peripherals
USB
Basic USB Concepts and FAQs
USB Hubs
USB-C® Power Delivery Controllers
USB Bridge Controllers

3. The method for navigating according to claim 1, wherein rolling over a selected active link triggers the display of sibling items on the hierarchically subordinate levels associated with said selected active link.	The '301 Accused Instrumentalities roll over a selected active link to trigger the display of sibling items on the hierarchically subordinate levels associated with said selected active link. For example, for the '301 Accused Instrumentalities, rolling over a selected active link triggers the display of sibling items on the hierarchically subordinate levels associated with said selected active link (*e.g.*, the '301 Accused Instrumentalities allow rolling over the link "Amplifiers and Linear" to trigger the display of sibling items on the hierarchically subordinate levels associated with the selected active link "Amplifiers and Linear" such as "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "Programmable Gain Amplifiers," and "DC Power Current Monitors") as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935:



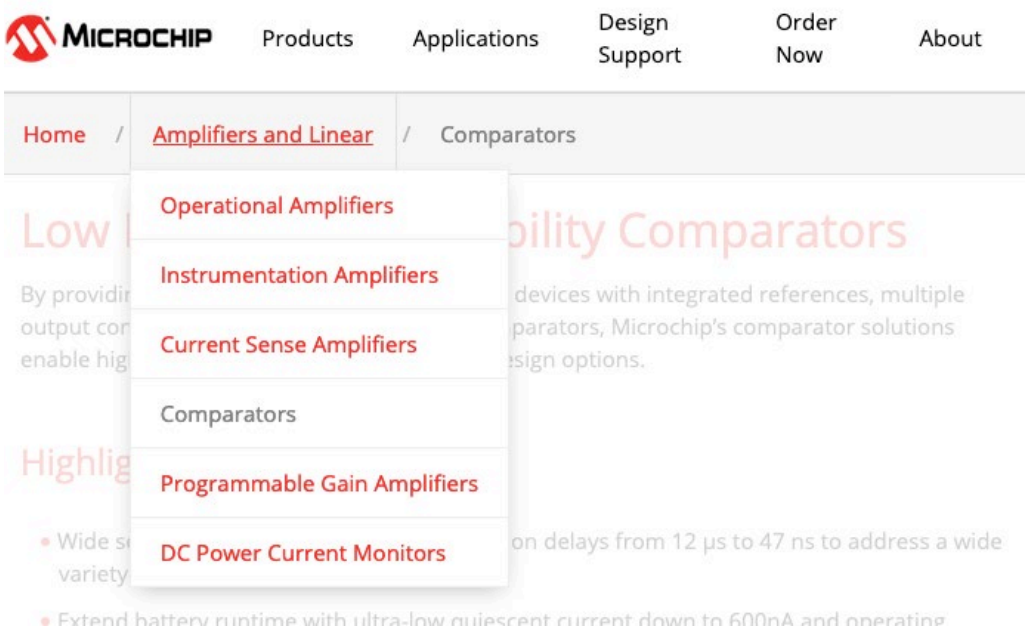
As another example, in the '301 Accused Instrumentalities, rolling over a selected active link triggers the display of sibling items on the hierarchically subordinate levels associated with said selected active link (e.g., rolling over and selecting "Microcontrollers and Microprocessors" in "Products / Microcontrollers and Microprocessors / 8-bit MCUs") to trigger the display of sibling menu items on the hierarchically subordinate levels (e.g., "Product Categories," "Developments," "Software Solutions," "Application Design Centers," and "Product Selections"), as shown below:

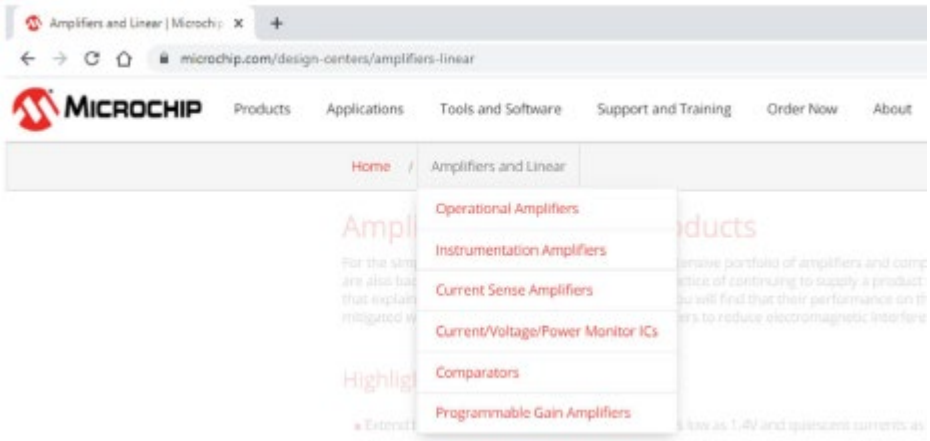


See https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors (last accessed Jun. 8, 2021).

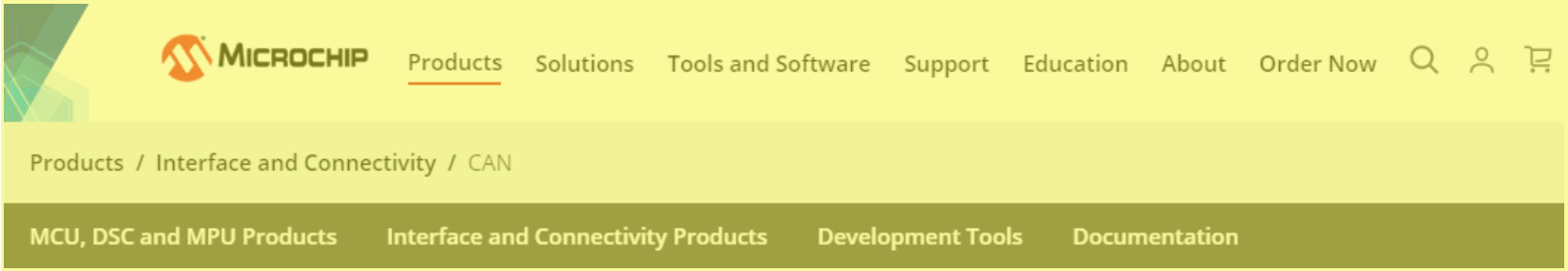
To the extent Microchip contends that the '301 Accused Instrumentalities do not literally meet the limitation of "rolling over a selected active link triggers the display of sibling items on the hierarchically subordinate levels associated with said selected active link," the limitation is met under the doctrine of equivalents by the '301 Accused Instrumentalities because they perform substantially the same

	function (displaying the sibling menu items on the hierarchically subordinate levels such as "Product Categories," "Developments," "Software Solutions," "Application Design Centers," and "Product Selections") in substantially the same way (e.g., displaying the sibling menu items that are on the hierarchically subordinate levels associated with the link "Microcontrollers and Microprocessors") to produce substantially the same result (e.g., sibling menu items on the level associated with the link "Microcontrollers and Microprocessors" are displayed and available for selection).

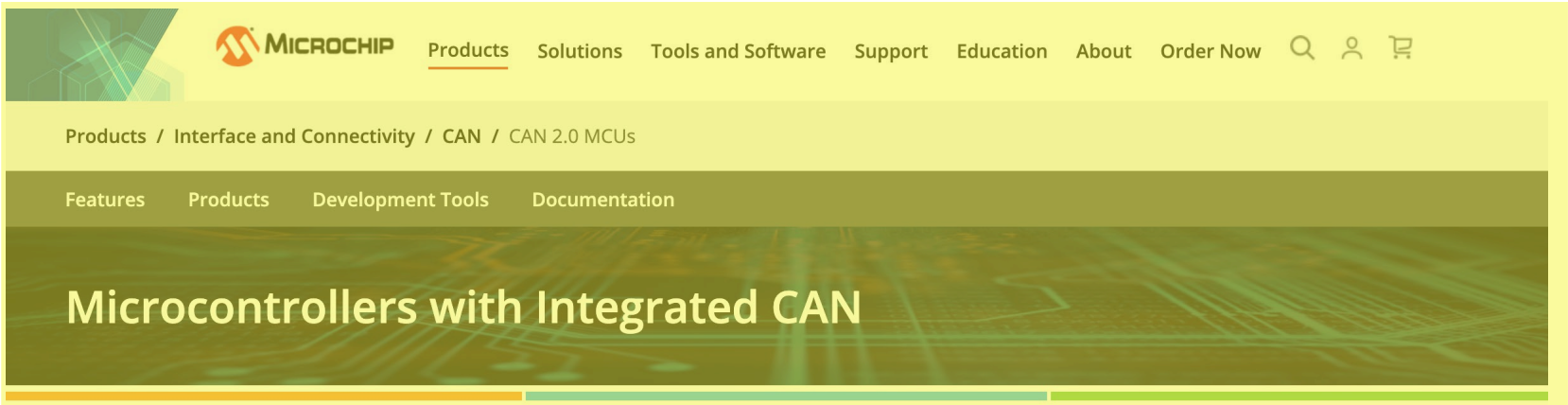
4. The method for navigating according to claim 1, wherein selecting a given active link triggers the execution of a function associated with said given active link.	The '301 Accused Instrumentalities select a given active link to trigger the execution of a function associated with said given active link. For example, the '301 Accused Instrumentalities allow selecting a given active link to trigger the execution of a function associated with said given active link (*e.g.*, selecting a given active link such as "Amplifiers and Linear" triggers the execution of a function, such as displaying sibling menus (*e.g.*, "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "Programmable Gain Amplifiers," and "DC Power Current Monitors") or directing user to certain content) as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935.



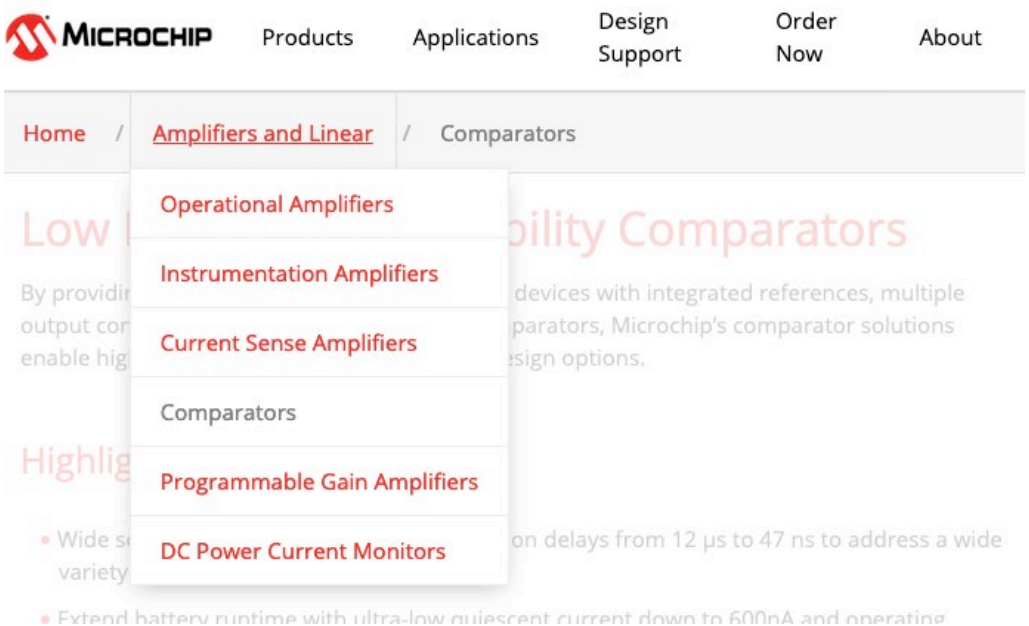
As another example, selecting a given active link triggers the execution of a function associated with said given active link (*e.g.*, selecting a given active link such as "CAN" in the path "Products / Interface and Connectivity / CAN / CAN 2.0 MCUs" triggers the execution of a function, such as displaying sibling menus (*e.g.*, "MCU, DSC and MPU Products," "Interface and Connectivity Products," "Development Tools," and "Documentation" associated with "CAN") or directing user to certain content such as content under the link "CAN"), as shown below:

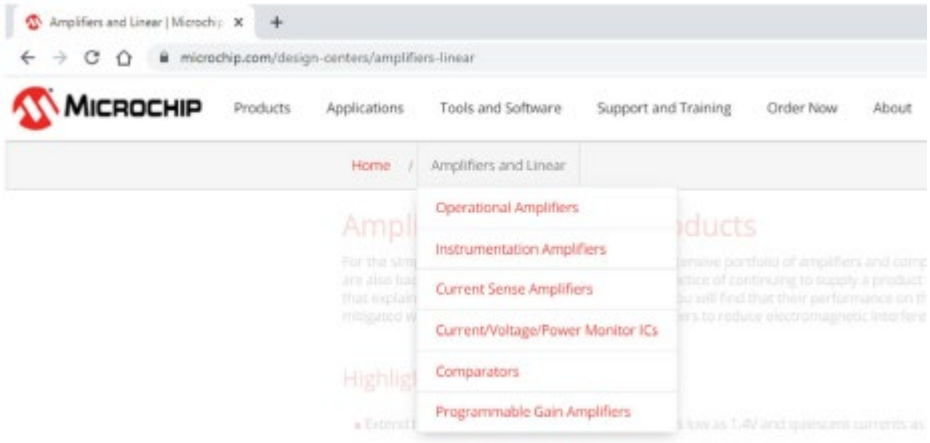


See, e.g., https://www.microchip.com/en-us/products/interface-and-connectivity/can (last accessed June 8, 2021); *see also*

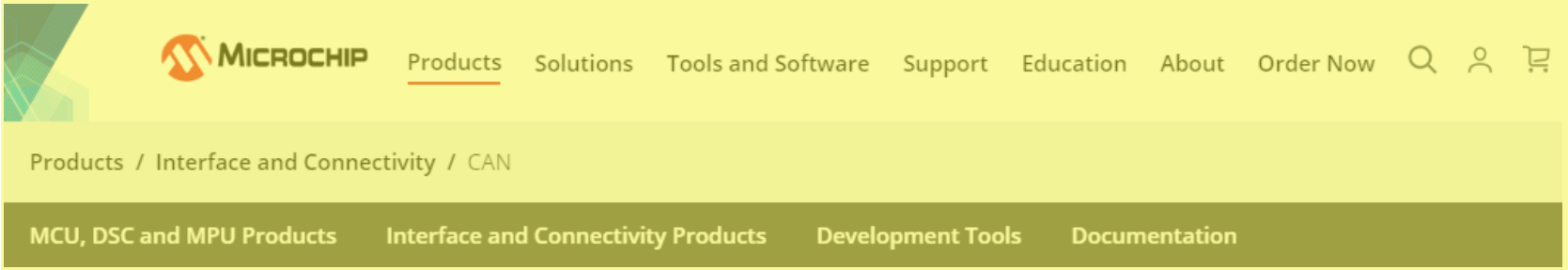


See https://www.microchip.com/en-us/products/interface-and-connectivity/can/can-2-0-mcus (last accessed Jun. 8, 2021).

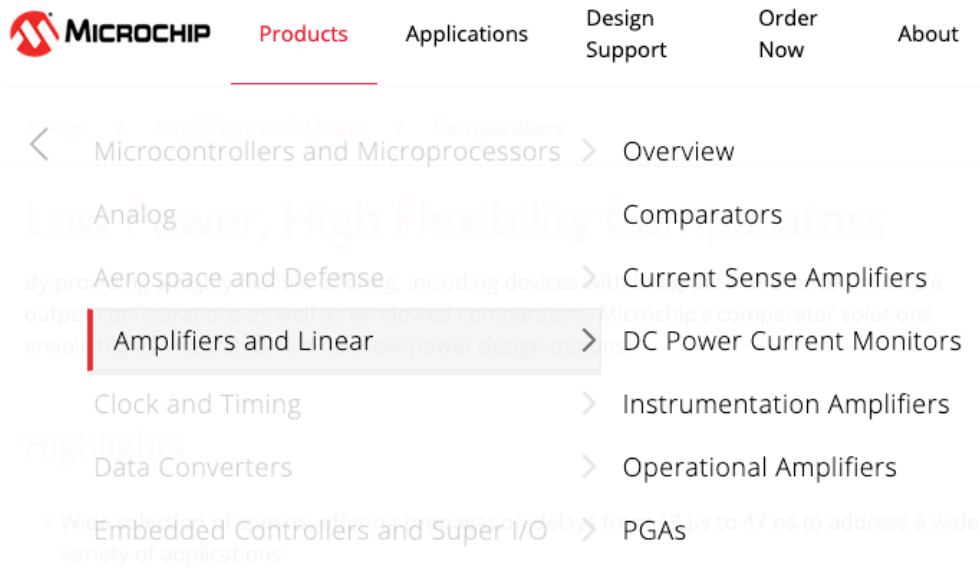
5. The method for navigating according to claim 1, wherein selecting a given active link triggers display of information associated with said given active link.	The '301 Accused Instrumentalities select a given active link to trigger the display of information associated with said given active link. For example, the '301 Accused Instrumentalities allow selecting a given active link to trigger the display of information associated with said given active link (*e.g.*, the '301 Accused Instrumentalities allow selecting the link "Amplifiers and Linear" to trigger display of information (*e.g.*, displaying "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "Programmable Gain Amplifiers," and "DC Power Current Monitors") associated with the link "Amplifiers and Linear") as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935:

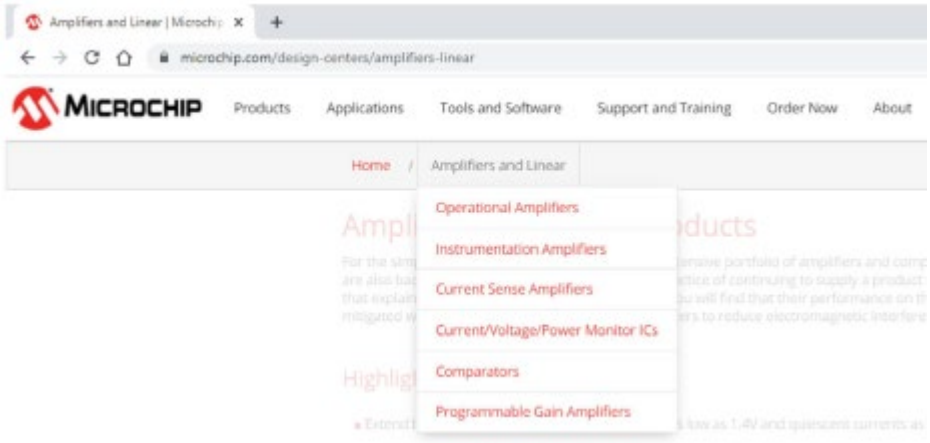


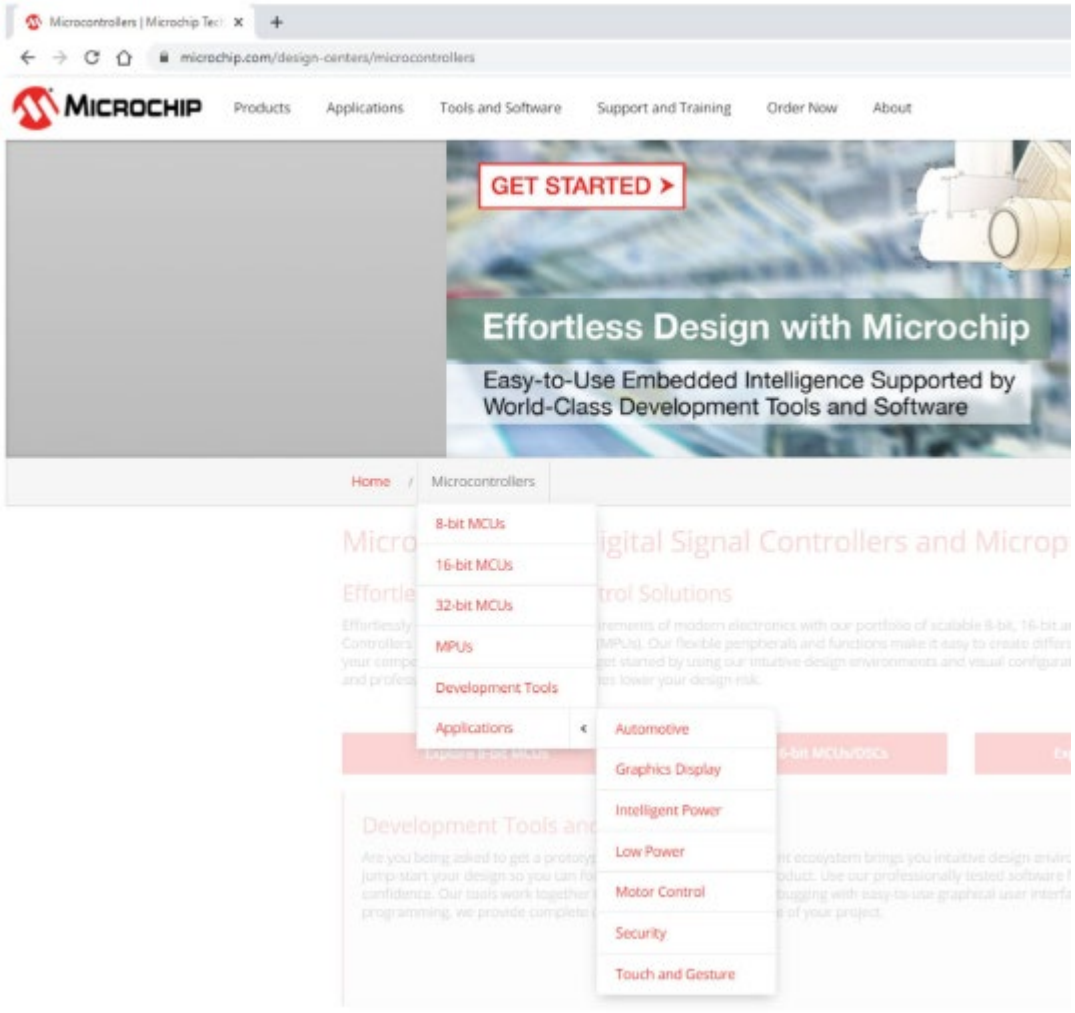
As another example, selecting a given active link triggering the execution of a function associated with said given active link (*e.g.*, selecting a given active link such as "CAN" in the path "Products / Interface and Connectivity / CAN / CAN 2.0 MCUs" triggers the execution of a function, such as displaying sibling menus (*e.g.*, "MCU, DSC and MPU Products," "Interface and Connectivity Products," "Development Tools," and "Documentation" associated with "CAN") or directing user to certain content such as content under the link "CAN"), as shown below:



See, e.g., https://www.microchip.com/en-us/products/interface-and-connectivity/can (last accessed June 8, 2021).

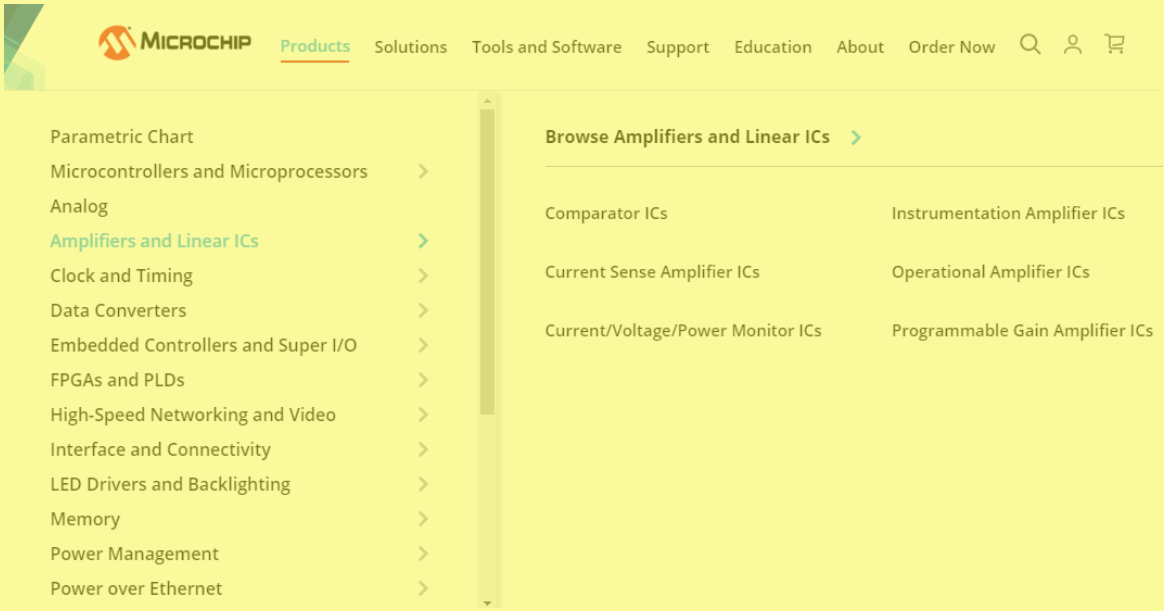
9. A method for navigating within a multi-level hierarchical information structure where each level in the structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level, said method comprising the steps of:	To the extent that the preamble of claim 9 is a limitation, the '301 Accused Instrumentalities provide, or support the provision of, a method for navigating within a multi-level hierarchical information structure where each level in the structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level. For example, the '301 Accused Instrumentalities provide a method for navigating within a multi-level hierarchical information structure where each level in the structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level (*e.g.*, the '301 Accused Instrumentalities provide a method for navigating within a multi-level hierarchical collapsing menu structure where each level in the information structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level (*e.g.*, "Products" includes "Amplifiers and Linear," which includes "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "Programmable Gain Amplifiers," and "DC Power Current Monitors")) as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020).

	See also MCHP-CADDO_0000935: 

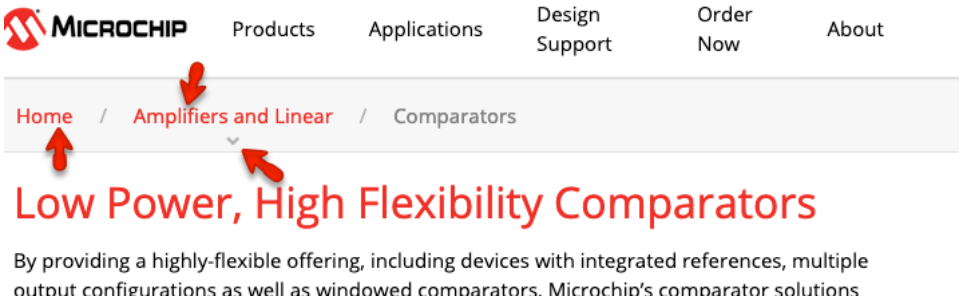
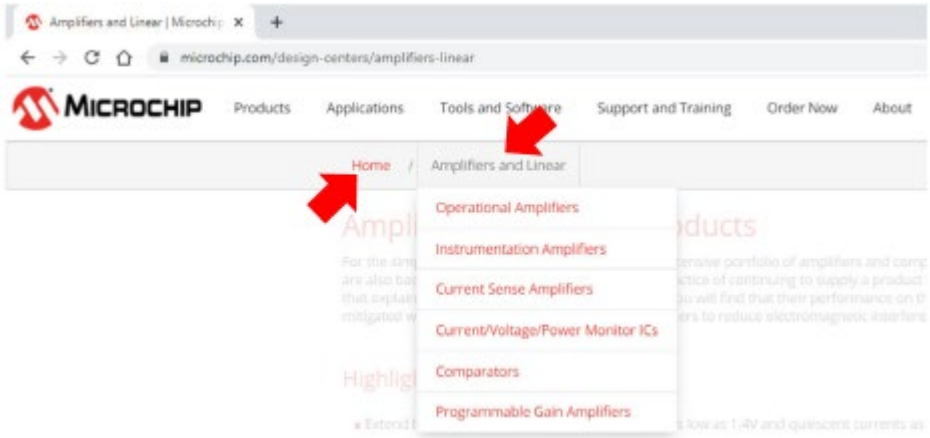


See MCHP-CADDO-0000931.

As another example, , the '301 Accused Instrumentalities provide a method for navigating within a multi-level hierarchical information structure where each level in the structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level (*e.g.*, the '301 Accused Instrumentalities provide a method for navigating within a multi-level hierarchical collapsing menu structure where each level in the information structure contains plural items, each said item being at least one of a function, a pointer to a location, and a pointer to another level (*e.g.*, "Products" includes "Amplifiers and Linear," which includes "Operational Amplifiers ICs," "Instrumentation Amplifiers ICs," "Current Sense Amplifiers ICs," "Comparators ICs," "Programmable Gain Amplifiers ICs," and "Current/Voltage/Power Monitor ICs")) as shown below:

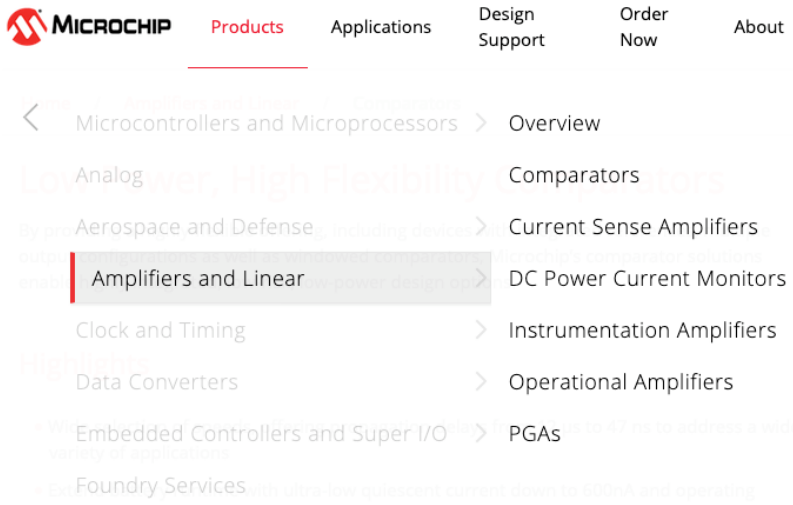


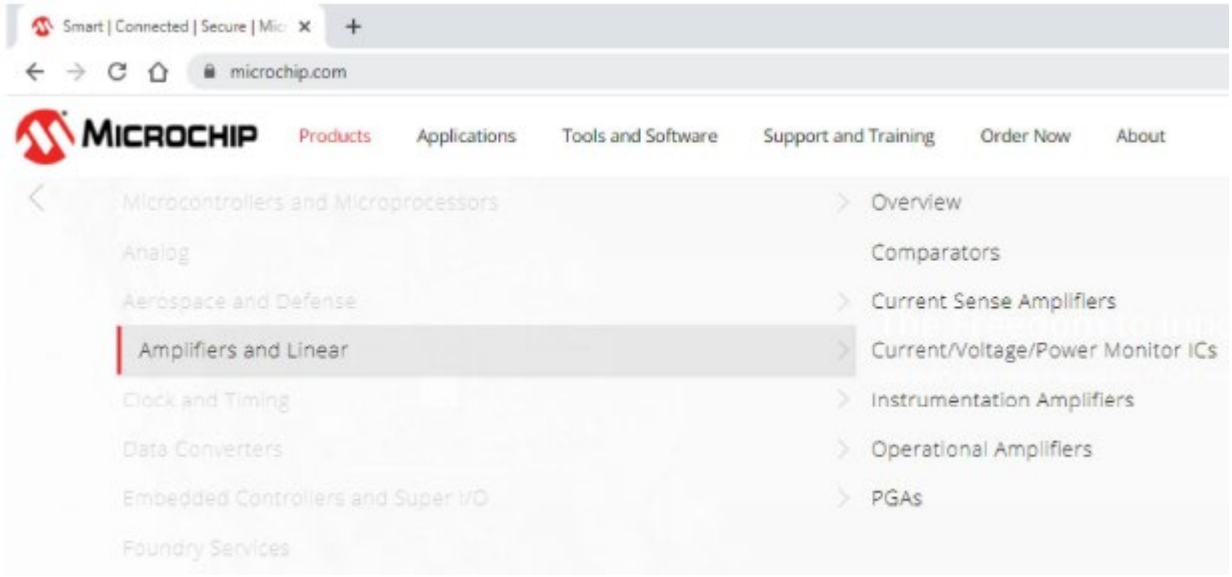
See https://www.microchip.com/en-us/products/amplifiers-and-linear-ics/comparator-ics (last accessed June 8, 2021).

displaying a graphic element representing a root of the hierarchical information structure;	The '301 Accused Instrumentalities display a graphic element representing a root of the hierarchical information structure. For example, the '301 Accused Instrumentalities provide displaying a graphic element representing a root of the hierarchical information structure (*e.g.*, the '301 Accused Instrumentalities display a number of graphic elements each representing a root of the hierarchical information structure) as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020) (annotated).  *See* MCHP-CADDO_0000935 (annotated).

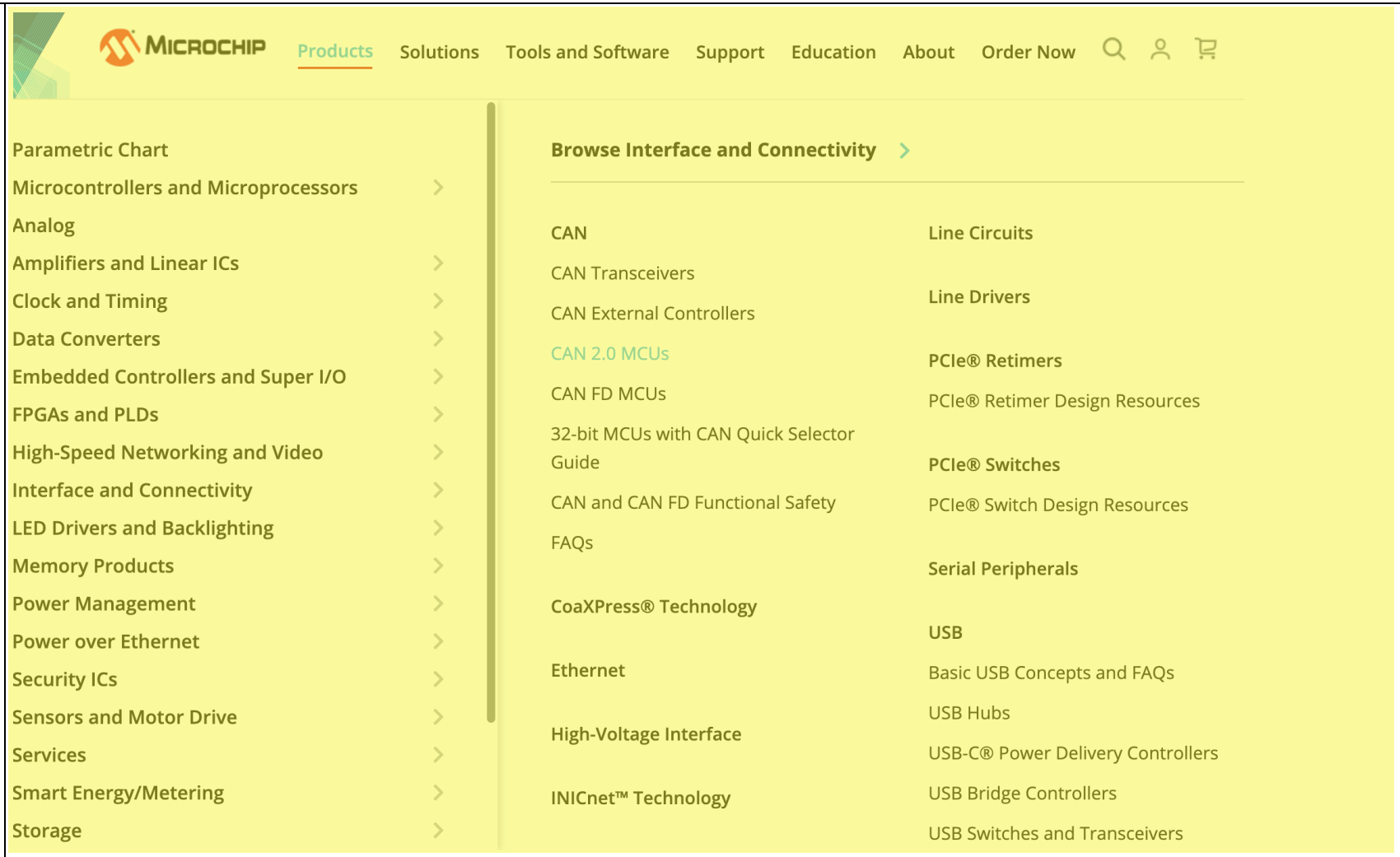
As another example, the '301 Accused Instrumentalities provide displaying a graphic element (e.g., graphic element "Microcontrollers and Microprocessors >") representing a root of the hierarchical information structure as shown below:

See https://www.microchip.com/ (last accessed Jun. 8, 2021)

browsing the hierarchical information structure by rolling over said graphic element using a pointing device, wherein browsing results in the display of sibling items or hierarchically subordinate items;	The '301 Accused Instrumentalities browse the hierarchical information structure by rolling over said graphic element using a pointing device, wherein browsing results in the display of sibling items or hierarchically subordinate items. For example, the '301 Accused Instrumentalities allow browsing the hierarchical information structure by rolling over said graphic element using a pointing device (*e.g.*, by rolling over, via a mouse, "Applications and Linear" or the "down arrow" or the "side arrow"), wherein browsing results in the display of sibling items or hierarchically subordinate items (*e.g.*, browsing results in the display of items such as "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "PGAs," and "DC Power Current Monitors") as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000934:



As another example, the '301 Accused Instrumentalities allow browsing the hierarchical information structure by rolling over said graphic element using a pointing device (*e.g.*, by rolling over, via a mouse, "Interface and Connectivity"), wherein browsing results in the display of sibling items or hierarchically subordinate items (*e.g.*, browsing results in the display of sibling or subordinate items such as "CAN" and "CAN 2.0 MCUs"") as shown below: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CAN External Controllers
CAN 2.0 MCUs
CAN FD MCUs
32-bit MCUs with CAN Quick Selector Guide
CAN and CAN FD Functional Safety
FAQs
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INICnet™ Technology
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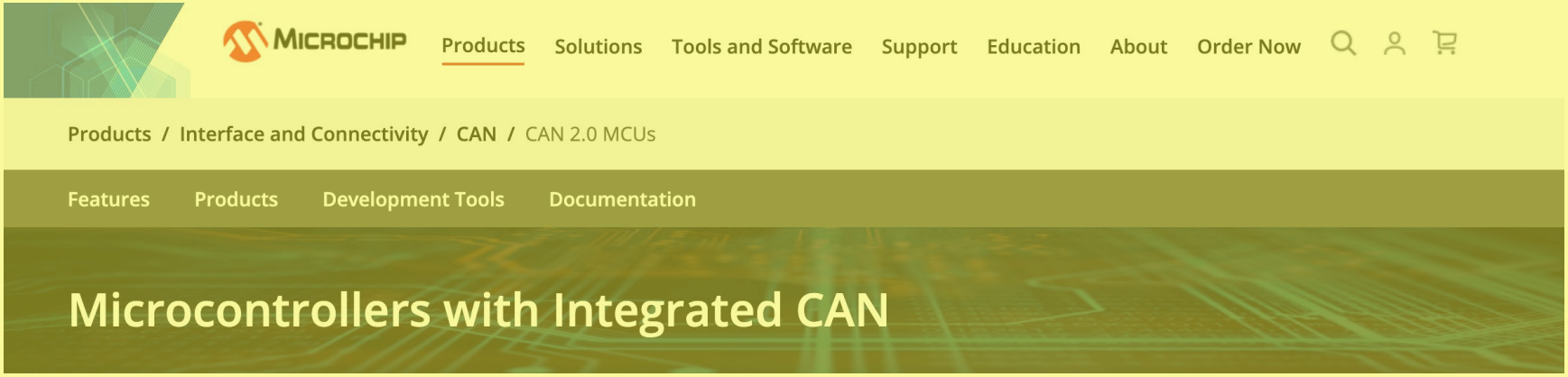
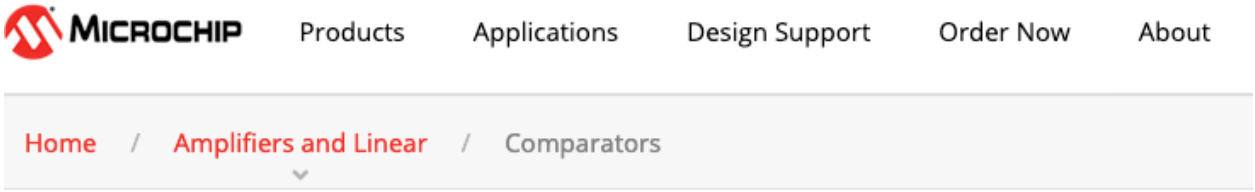
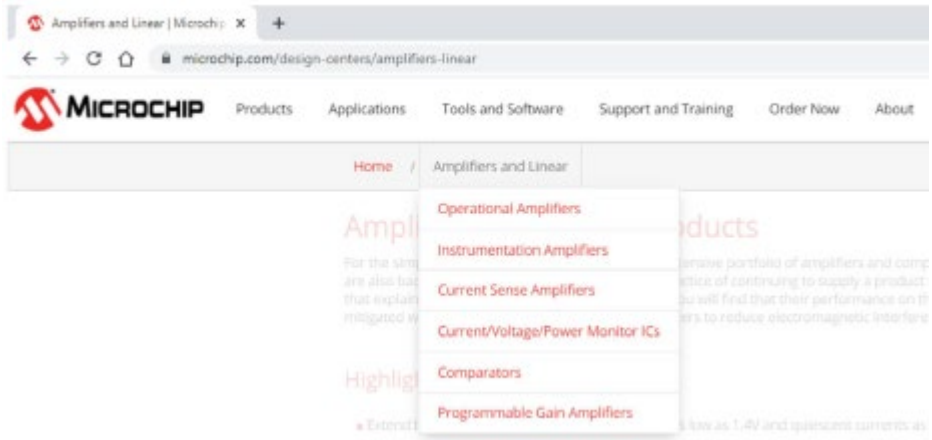
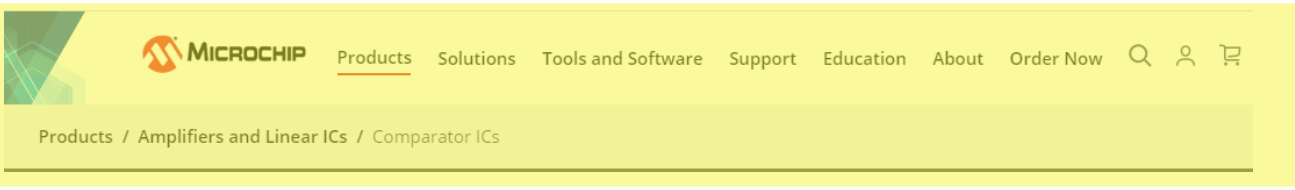
USB
Basic USB Concepts and FAQs
USB Hubs
USB-C® Power Delivery Controllers
USB Bridge Controllers
USB Switches and Transceivers

https://www.microchip.com/ (last accessed Jun. 8, 2021); *see also:*

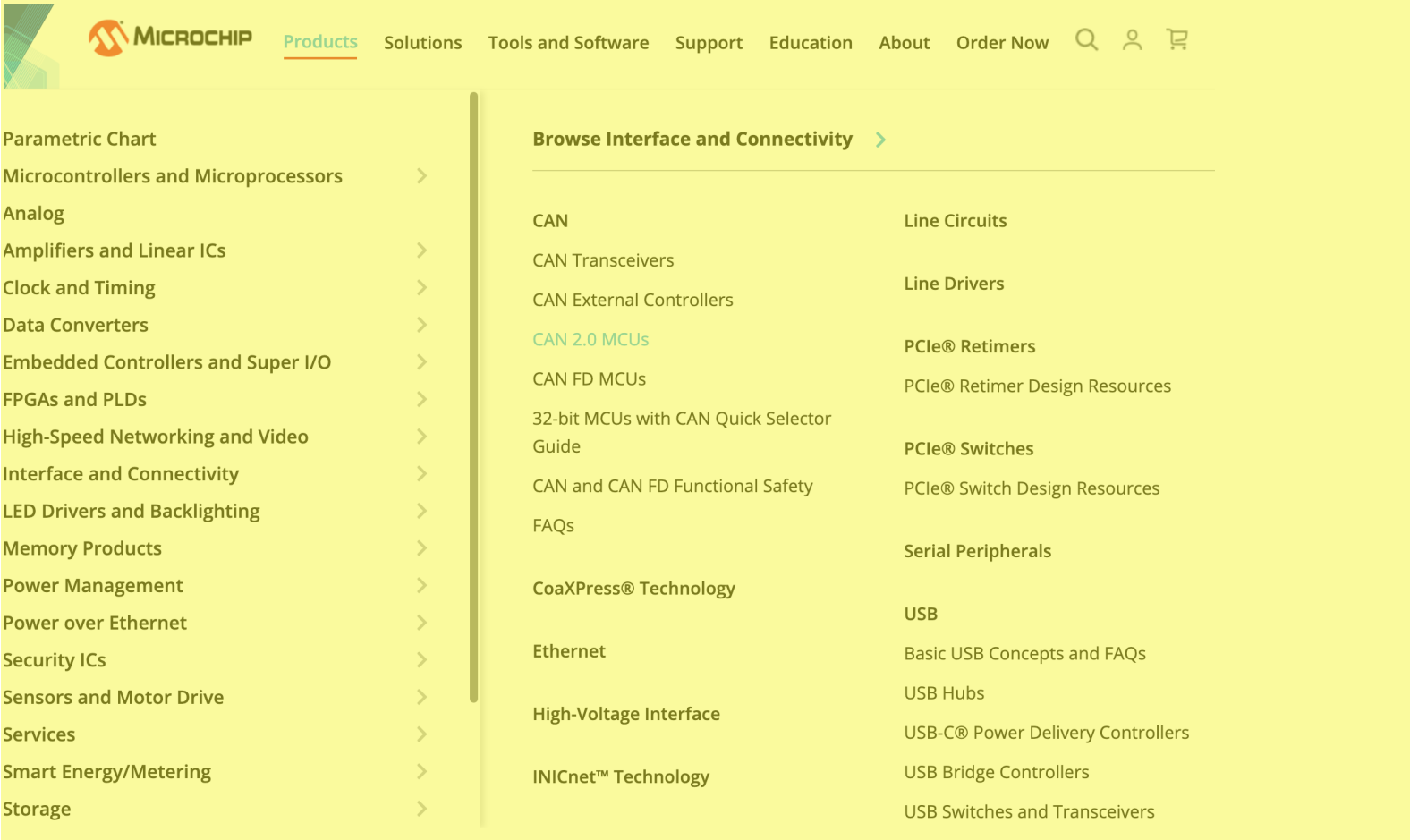


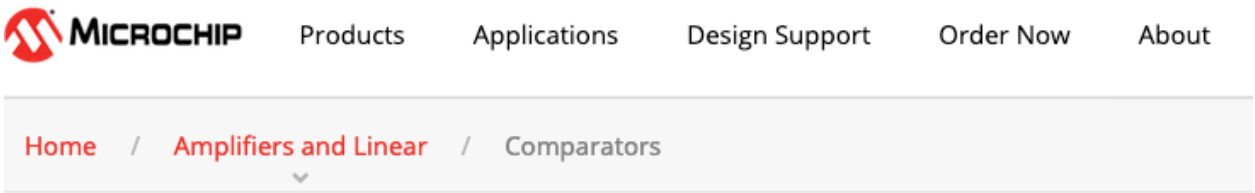
https://www.microchip.com/en-us/products/interface-and-connectivity/can/can-2-0-mcus (last accessed Jun. 8, 2021).

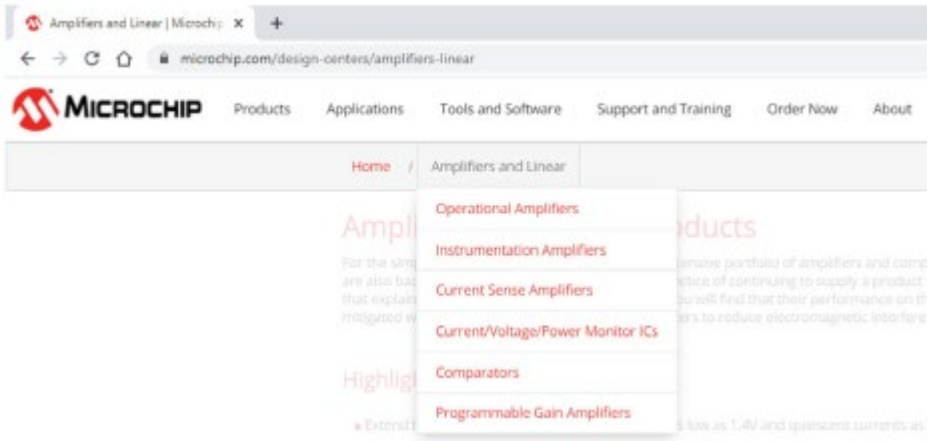
selecting one of the displayed items;	The '301 Accused Instrumentalities selects one of the displayed items. For example, the '301 Accused Instrumentalities allow selecting one of the displayed items (*e.g.*, selecting "Amplifiers and Linear").  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020).  *See also* MCHP-CADDO_0000935: 

See also https://www.microchip.com/en-us/products/amplifiers-and-linear-ics/comparator-ics (last accessed June 8, 2021).

See also https://www.microchip.com/ (last accessed Jun. 8, 2021) (selecting "CAN 2.0 MCUs");



dynamically constructing an Active Path as a sequence of active links as items are selected, with one said active link corresponding to each of the items selected, said active links providing direct access to one of a function, corresponding level and item without the need to navigate from the root of the hierarchical information structure;	The '301 Accused Instrumentalities dynamically construct an Active Path, which has been construed by this Court (Dkt. 34) as a sequence of links dynamically created as a menu item is navigated, as a sequence of active links as items are selected, with one said active link corresponding to each of the items selected, said active links providing direct access to one of a function, corresponding level and item without the need to navigate from the root of the hierarchical information structure. For example, the '301 Accused Instrumentalities dynamically construct a sequence of links dynamically created as a menu item is navigated (*e.g.*, the '301 Accused Instrumentalities dynamically constructed sequence of links dynamically created as a menu item is navigated (*e.g.*, "Amplifiers and Linear—Comparators") as a sequence of active links as items are selected (*e.g.*, as "Amplifiers and Linear" and "Comparators" are selected)), with one said active link corresponding to each of the items selected, said active links providing direct access to one of a function, corresponding level and item without the need to navigate from the root of the hierarchical information structure (*e.g.*, the '301 Accused Instrumentalities' sequence of links dynamically created as a menu item is navigated "Amplifiers and Linear—Comparators" corresponds to each of the items sequentially selected, including "Amplifiers and Linear" and "Comparators"), as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935:



See also https://www.microchip.com/en-us/products/amplifiers-and-linear-ics/comparator-ics (last accessed June 8, 2021) below:

See also MCHP-CADDO_0001040-41:

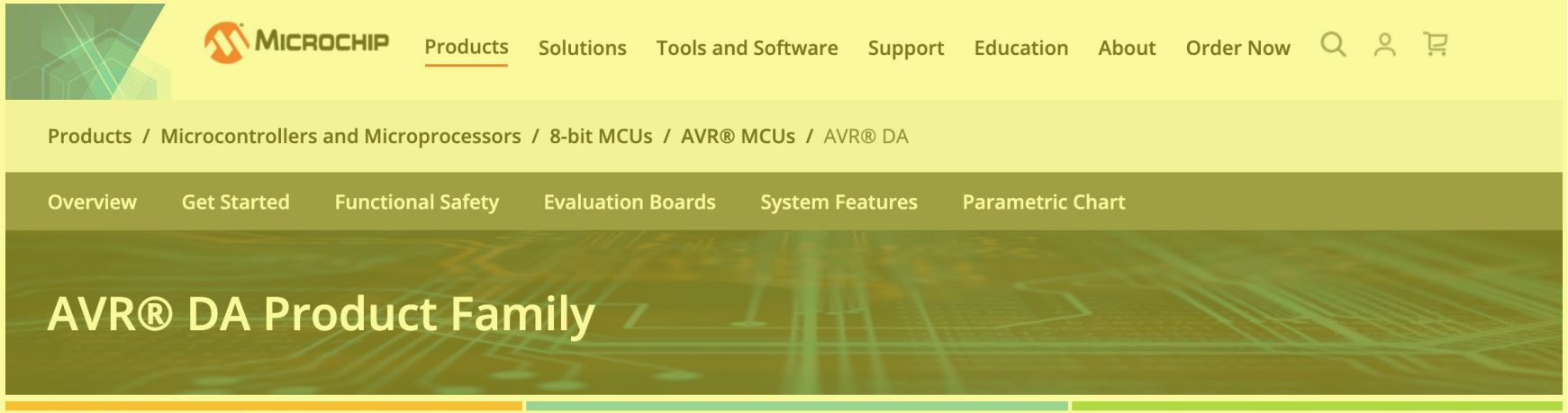
```
<div class="breadcrumbs-open-btn"><span>Menu</span></div>
<div class="breadcrumbs">
    <div class="breadcrumbs-top-bar">
        <span class="breadcrumbs-close-btn">×</span>
    </div>

    <div class="crumbs-wrapper">
        <div class="crumb">
            <div class="crumb-top">
                <a href="/">Home</a>
            </div>
        </div>
        <span class="breadcrumbs-separator">/</span>

                <div class="crumb has-menu">
                    <div class="crumb-top  current">
                        <a href="/design-centers/amplifiers-linear">Amplifiers and Linear</a>
                            <div class="open-menu"><i class="fa fa-angle-down"></i></div>
                </div>
                  <ul>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/operational-amplifiers">Operational Amplifiers</a>
    </li>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/instrumentation-amplifiers">Instrumentation Amplifiers</a>
    </li>
    <li class="">
        <a class=" " href="/design-centers/amplifiers-linear/current-sense-amplifiers">Current Sense Amplifiers</a>
    </li>
    <li class="">
```

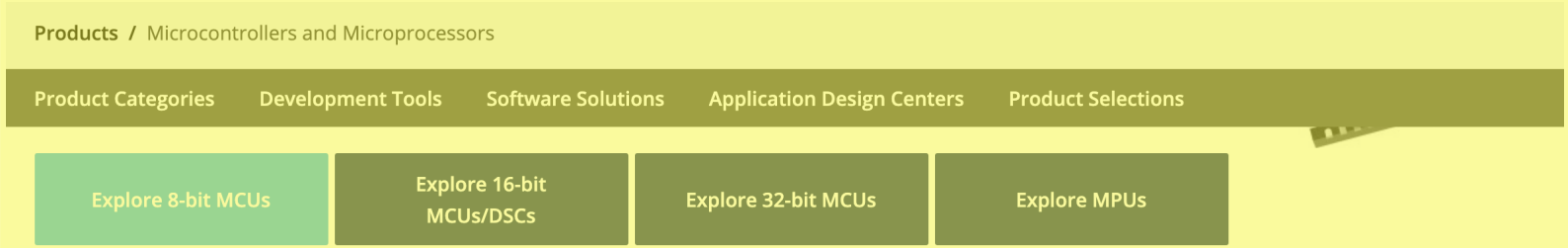
```
349             <a class=" " href="/design-centers/amplifiers-linear/current-voltage-p
    ower-monitors">Current/Voltage/Power Monitor ICs</a>
350         </li>
351         <li class="">
352             <a class=" " href="/design-centers/amplifiers-linear/comparators">Comp
    arators</a>
353         </li>
354         <li class="">
355             <a class=" " href="/design-centers/amplifiers-linear/programmable-gain
    -amplifiers">Programmable Gain Amplifiers</a>
356         </li>
357                         </ul>
358                     </div>
359
360         </div>
361     </div>
362     <div class="breadcrumbs-curtain"></div>
363
364     <div class="row" data-sf-element="Row">
```

As another example, the '301 Accused Instrumentalities dynamically construct a sequence of links dynamically created as a menu item is navigated (*e.g.*, links in the path "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs / AVR® DA" are dynamically created as their corresponding menu item is navigated) as a sequence of active links as items are selected (*e.g.*, as menu items corresponding to the path "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs / AVR® DA" are selected)), with one said active link corresponding to each of the items selected (e.g., each link in "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs / AVR® DA" corresponds to an item selected), said active links providing direct access to one of a function, corresponding level and item without the need to navigate from the root of the hierarchical information structure (*e.g.*, the links in "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs / AVR® DA" provide direct access to "Overview," "Get Started," "Functional Safety," "Evaluation Boards," "System Features," and "Parametric Chart", or direct access to content, level, or items) as shown below:



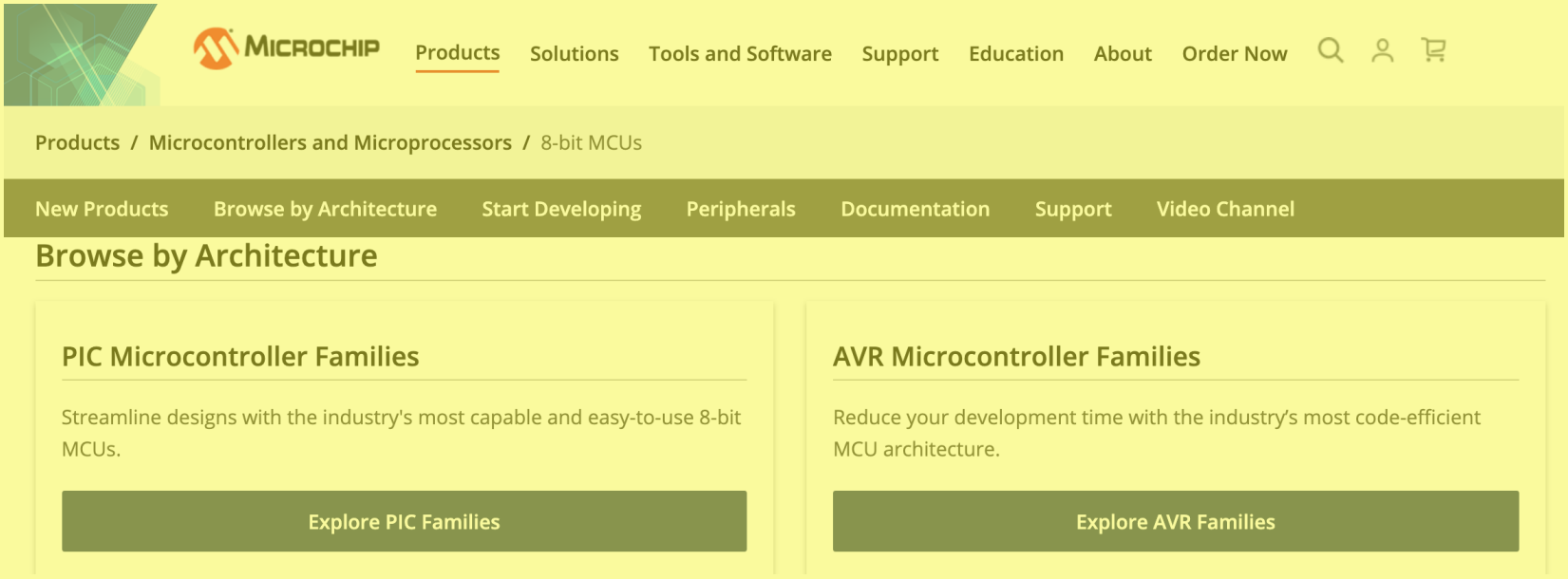
See https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus/avr-da (last accessed Jun. 8, 2021).

See also:



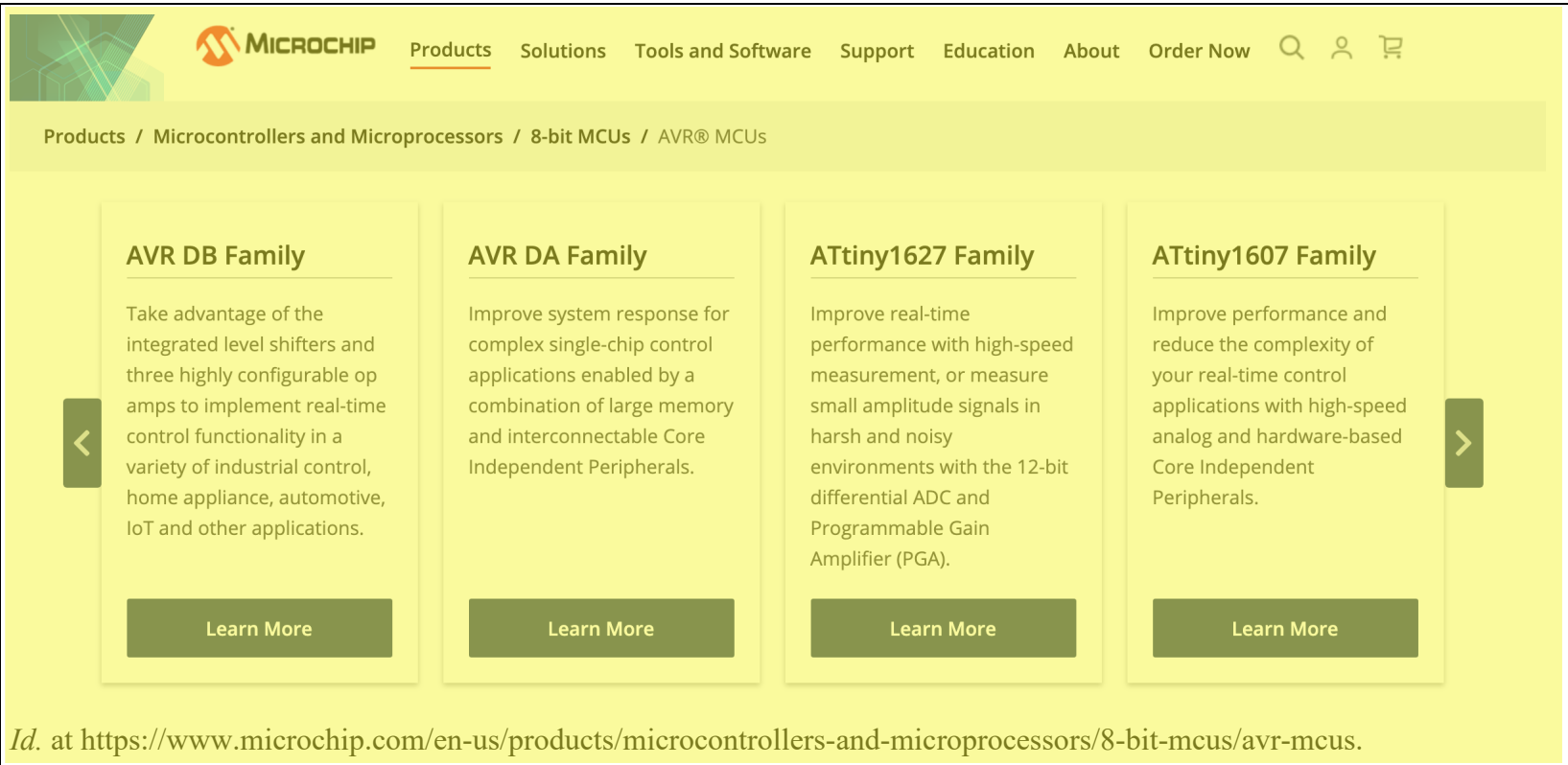
Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors.

See also:

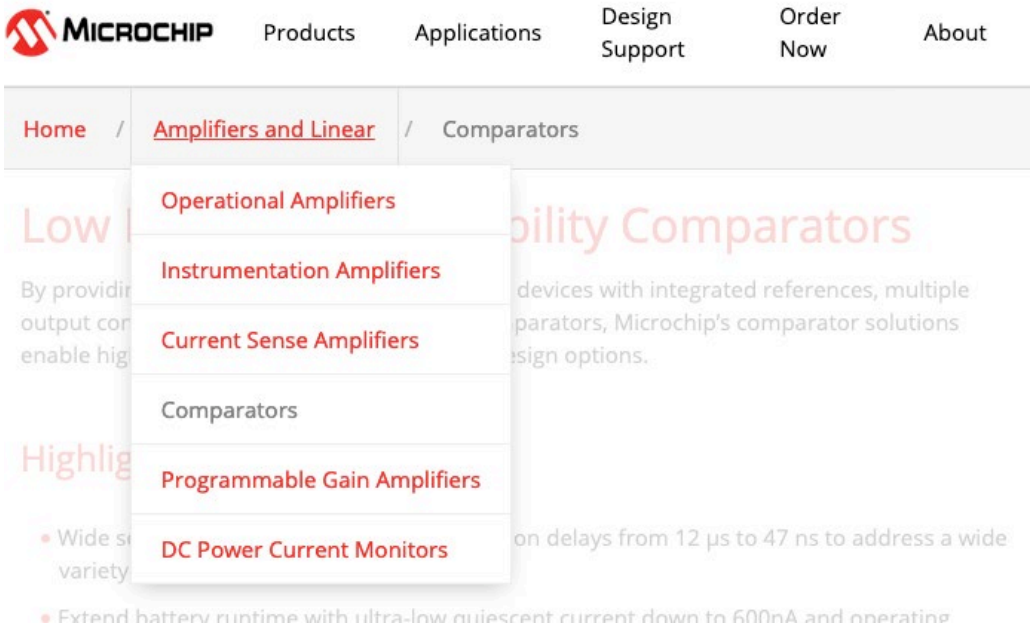


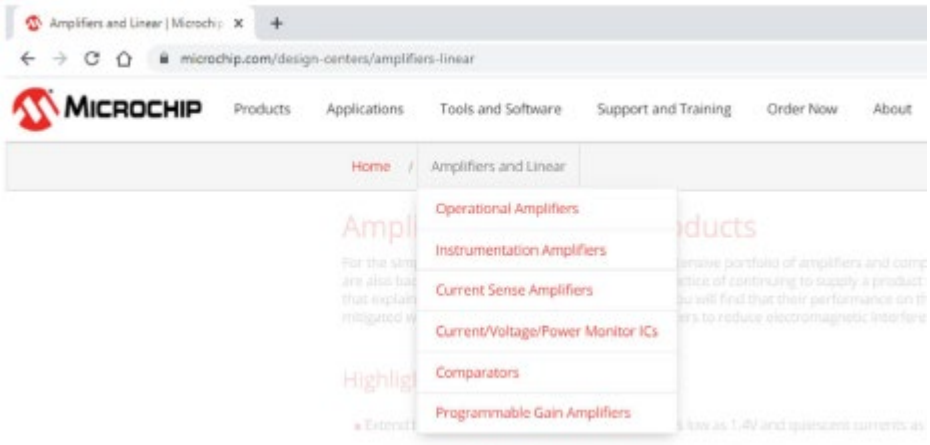
Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus.

See also:

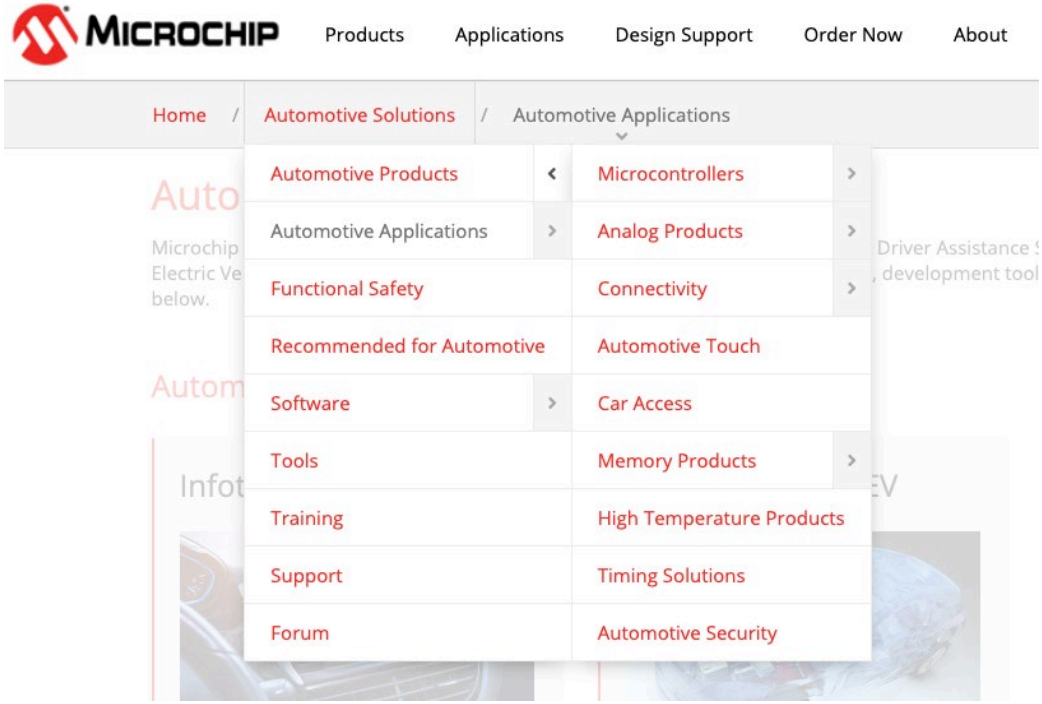


Id. at https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus.

each said active link enabling the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the Active Path.	Each said active link in the '301 Accused Instrumentalities enables user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the Active Path, which has been construed by this Court (Dkt. 34) as a sequence of links dynamically created as a menu item is navigated. For example, each active link in the '301 Accused Instrumentalities enables the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the sequence of links dynamically created as a menu item is navigated (*e.g.*, the '301 Accused Instrumentalities enable the user to directly browse all items under "Amplifiers and Linear" such as "Operational Amplifiers," "Instrumentation Amplifiers," "Current Sense Amplifiers," "Comparators," "Programmable Gain Amplifiers," and "DC Power Current Monitors" without affecting the sequence of links dynamically created as a menu item "Amplifiers and Linear—Comparators") as shown below:  *See, e.g.*, https://www.microchip.com/design-centers/amplifiers-linear/comparators (last visited Feb. 10, 2020). *See also* MCHP-CADDO_0000935:

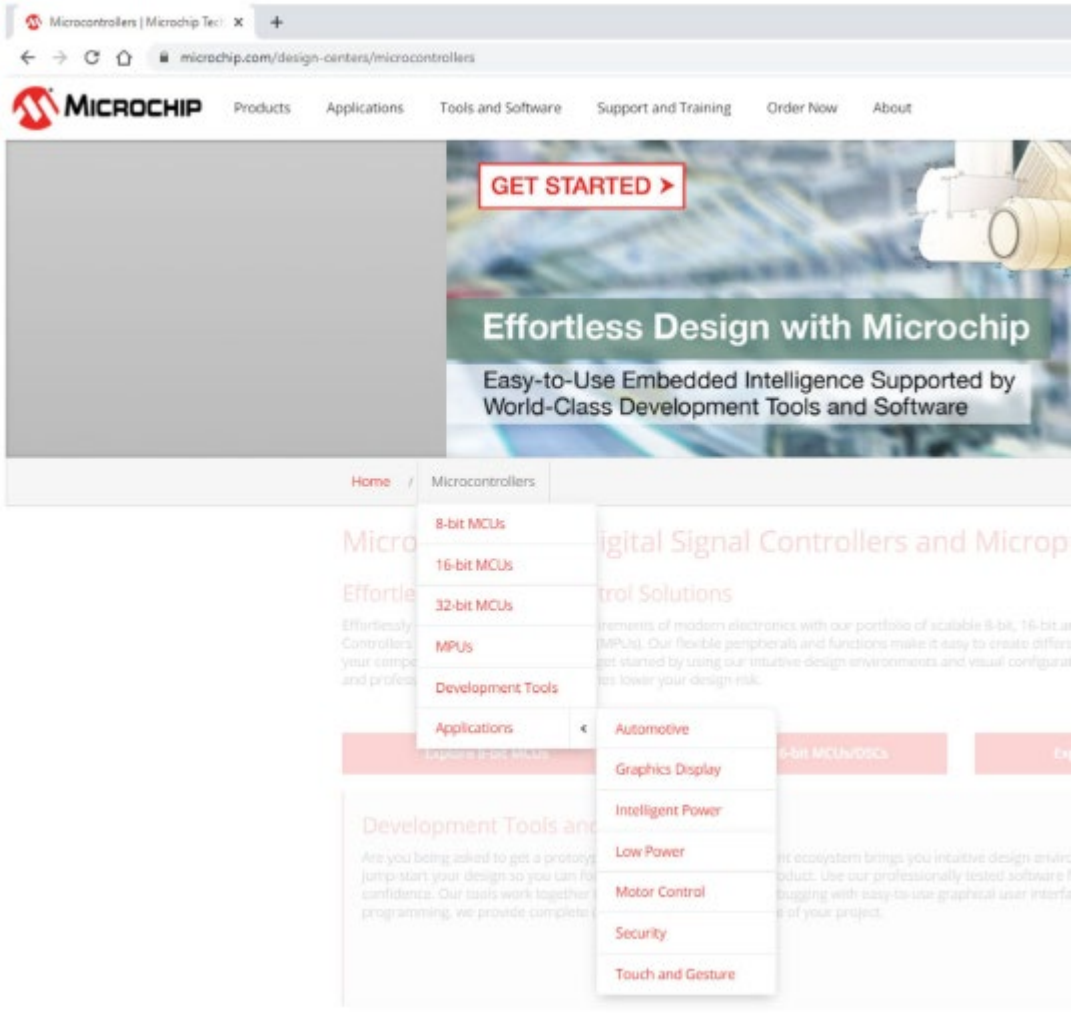


As another example, each active link in the '301 Accused Instrumentalities enables the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the sequence of links dynamically created as a menu item is navigated (*e.g.*, the '301 Accused Instrumentalities enable the user to directly browse all items under "Automotive Solutions" such as "Automotive Products," including all hierarchically subordinate items such as "Microcontrollers," "Analog Products," "Connectivity," "Automotive Touch," "Car Access," "memory Products," "High Temperature Products," "Timing Solutions," and "Automotive Security" without affecting the sequence of links (e.g., without affecting the links in "Home / Automotive Solutions / Automotive Applications") dynamically created as a menu item is navigated) as shown below:



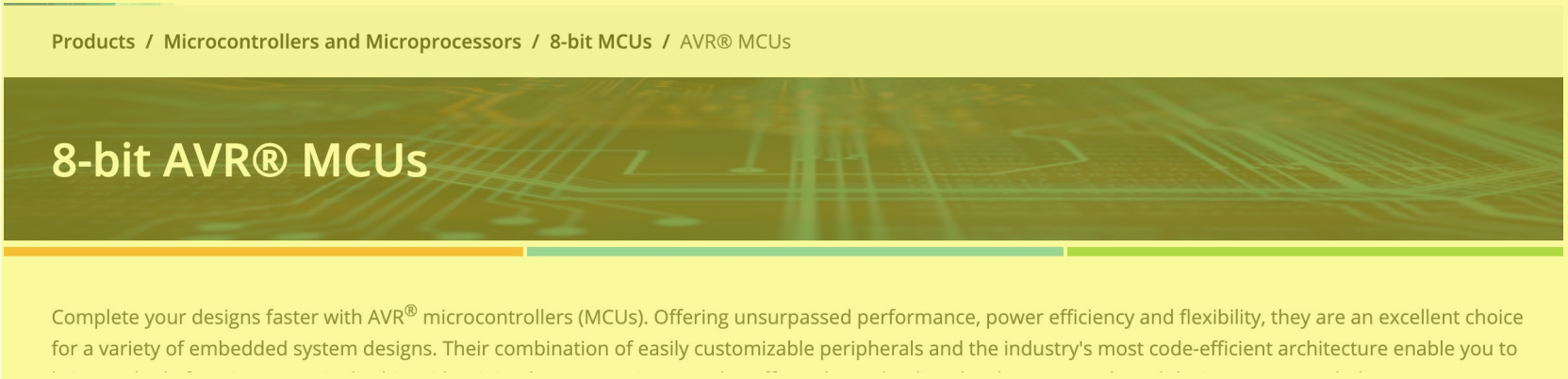
See, e.g., https://www.microchip.com/design-centers/automotive-solutions (last visited Feb. 10, 2020).

See also:



See MCHP-CADDO-0000931.

As another example, each active link in the '301 Accused Instrumentalities enabling the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items without affecting the sequence of links dynamically created as a menu item is navigated (*e.g.*, the '301 Accused Instrumentalities enable the user to directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items in the path "Products / Microcontrollers and Microprocessors / 8-bit MCUs / AVR® MCUs" without affecting the a sequence of links dynamically created as a menu item is navigated "Products / Microcontrollers and Microprocessors") as shown below:

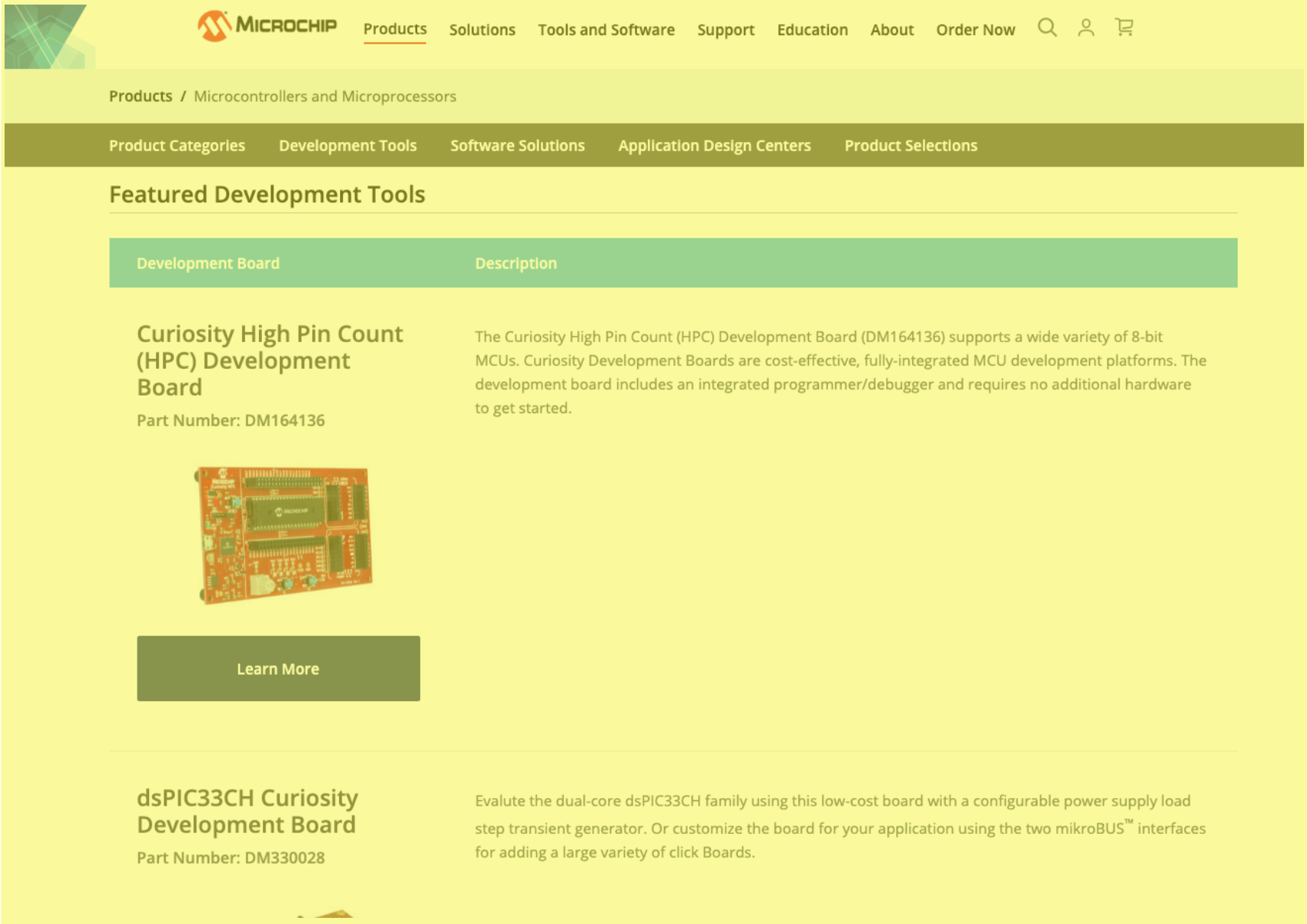


See https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors/8-bit-mcus/avr-mcus/avr-da (last visited Jun. 7, 2021).

For example, the user can directly browse all items on any given level of the hierarchical information structure including all hierarchically subordinate items in the path "Products / Microcontrollers and Microprocessors" such as "Product Categories," "Development Tools," "Software Solutions," "Application Design Centers," and "Product Selections" without affecting the path "Products / Microcontrollers and Microprocessors" (e.g., the user can browse items under "Product Categories," "Development Tools," "Software Solutions," "Application Design Centers," or "Product Selections" without affecting the path "Products / Microcontrollers and Microprocessors.").

As another example, each active link in the '301 Accused Instrumentalities enables the user to directly browse all items on any given level of the hierarchical information structure (e.g., all items under "Products / Microcontrollers and Microprocessors") including all hierarchically subordinate items (e.g., browsing "Development tools" allows browsing of subordinate items such as products

	associated with "Part Number: DM164136" or "Part Number: DM330028") without affecting the sequence of links dynamically created as a menu item is navigated as shown below: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Application Design Centers
Product Selections
Featured Development Tools
Development Board
Description
Curiosity High Pin Count (HPC) Development Board
Part Number: DM164136
The Curiosity High Pin Count (HPC) Development Board (DM164136) supports a wide variety of 8-bit MCUs. Curiosity Development Boards are cost-effective, fully-integrated MCU development platforms. The development board includes an integrated programmer/debugger and requires no additional hardware to get started.
Learn More
dsPIC33CH Curiosity Development Board
Part Number: DM330028
Evalute the dual-core dsPIC33CH family using this low-cost board with a configurable power supply load step transient generator. Or customize the board for your application using the two mikroBUS™ interfaces for adding a large variety of click Boards.

	See https://www.microchip.com/en-us/products/microcontrollers-and-microprocessors#Development%20Tools (last accessed Jun. 8, 2021).